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UNITED STATES DEPARTMENT OF AGRICULTURE

Agricultural Research

Western Region and the Agricultural

Experiment Stations of the Western States

Quality Characteristics of Cultivars and  
New Germplasm of Wheat Bred and Grown in the  
Western States<sup>1/</sup>

Thirty-Sixth Annual Report

of the

Western Wheat Quality Laboratory

1983 Crop <sup>2/</sup>

WRU No. 5802-20050-010

G.L. Rubenthaler, H.C. Jeffers, P.L. Finney, P.D. Anderson,  
A.D. Bettge, D.A. Engle, P.S. Green and P.A. Sperry

Sept. 1984

- <sup>1/</sup> In cooperation with the Arizona, California, Idaho, Montana, Oregon, Utah, and Washington Agricultural Experiment Stations who developed and grew the experimental wheat selections studied.
- <sup>2/</sup> This is a Progress Report of cooperative investigations of the milling and baking characteristics of current commercial cultivars and new germplasm of wheat grown in the Western states. Interpretation of the data may be changed with further experimentation; therefore, data in this report are not for publication, display, or distribution without prior written approval of the Agricultural Research Service, USDA and the cooperating agencies concerned.

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Western Wheat Quality Laboratory  
1983 Crop

## SUMMARY OF ACCOMPLISHMENTS

Evaluation for end-use milling and baking quality of 1889 experimental wheat crosses grown and harvested as the 1983 crop were made. The selections were submitted from the wheat breeding programs in the Western states. To-date analysis and evaluation has been completed on about 150 selections from the 1984 crop. Test criteria used to determine acceptability were flour yield, protein, ash and color; cookie diameter; loaf volume and crumb score; dough mixing requirements and water absorption; Japanese sponge cake volume and texture; Udon noodle yield, texture, color and score; and some developed test for Middle-Eastern style flat breads. Many of these experimental selections were judged as having acceptable end-use quality fitting their market classes. This work is an integral part of the wheat improvement programs to assure release of good agronomic and high quality wheat varieties. Results of the analysis can be found in the tables of data in Nursery Codes #1 through #63. See the Index of Nurseries (Page iv ) for nursery titles, locations, and breeders.

In addition, the evaluation of milling and baking properties were made on 2371 early generation selections from the wheat breeding programs that were grown in 1983. Studies included materials from snowmold, foot rot, dwarf smut, yield trial, and various crop management studies. 738 (31%) of the experimental crosses were rated as having promise in overall quality characteristics. This material represents a new generation of experimental selections that are candidates for advancing and further testing to determine their desirability as possible commercial varieties. See Summary List of Early Generation Nurseries Evaluated on Page 15 . No data is included.

In co-operation with a grant from the PNW Grains Council the milling and baking evaluation were made on commercial composites representing the wheat crop (1983) of WA, OR, and ID. The data was used in their marketing brochures. See Nursery Code number 20.

In co-operation with the Montana Wheat Quality Council we assisted in the pilot milling and baking evaluation of 31 hard red winter and spring samples. The samples were advanced selections from the Montana wheat breeding program, which were candidates for commercial variety release following industry evaluation. See Nursery Code 019 for results. Similarly we collaborated with the Hard Red Winter Wheat Quality Council by baking evaluation of 20 hard red winter wheats. For these results see Nursery Code 045.



NURS CODE	NURS ID	NURSERY NAME	LOCATION	BREED	NOSAM	BLABNO	SDATE	BRCO	COCO	CACO	NOCO	PBAR
001		INTERNATIONAL PLANT BREEDERS ADV. HRS	YUMA, AZ	IAL A. LEWIS	9	830001	83154	1	0	0	0	10
002		OSU FOOD SCIENCE	CORVALLIS, OR	P.H. KRUMPERMAN	3	830010	83179	0	1	1	1	8
003		QUALITY VS ELECTROPHORETIC BANDS	DAVIS, CA	H.E. VOGT	180	830013	83196	1	0	0	0	8
004		AUSTRALIAN WHEAT	AUSTRALIA	.	4	830193	83207	1	1	1	1	11
005		NABISCO-CHENEY	CHENEY, WA	.	2	830197	83200	0	1	0	0	10
006		WSFS REGIONAL WHEAT	WESTSIDE STA. UC, CA	L.F. JACKSON	30	830199	83214	1	0	0	0	11
007		SUTTER REGIONAL WHEAT	SUTTER CO., CA	L.F. JACKSON	27	830229	83214	1	0	0	0	8
008		BUTTE REGIONAL WHEAT	BUTTE CO., CA	L.F. JACKSON	27	830256	83214	1	0	0	0	10
009		UCD REGIONAL WHEAT	DAVIS, CA	L.F. JACKSON	30	830283	83214	1	0	0	0	10
010		DELTA REGIONAL WHEAT	SAN JOAQUIN DELTA CA	L.F. JACKSON	30	830313	83214	1	0	0	0	12
011		FERTILIZATION X IRRIGATION	WESTSIDE STA. UC, CA	S. PETTYGROVE	30	830343	83221	1	0	0	0	10
012		POMEROY SOFT WHITE YIELD TRIAL	POMEROY, WA	G.J. PETERSON	120	830373	83220	0	1	0	0	8
013		POMEROY HARD RED YIELD TRIAL	POMEROY, WA	G.J. PETERSON	28	830493	83220	1	0	0	0	0
014		SNOW MOLD	MANSFIELD/PULLMAN WA	G.W. BRUEHL	26	830521	83238	1	1	0	0	7
015		ADVANCED WHITE WINTER	MOSCOW, ID	C.T. LIU	10	830547	83242	1	1	0	0	7
016		ADVANCED COMMON WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	49	830557	83251	1	0	0	0	10
017		SEPTORIA ADVANCED YIELD TRIAL	DAVIS, CA	H.E. VOGT	25	830606	83252	1	0	0	0	8
018		SEED MIXTURE STUDY	PULLMAN, WA	C.J. PETERSON	60	830631	83258	0	1	0	0	7
019		MONTANA WHEAT QUALITY COUNCIL	HV, SD, MC, BZ, CN, MONT.	MCNEAL & TAYLOR	31	830691	83276	1	0	0	0	13
020		PNWGC CROP QUALITY SURVEY	WA, OR, ID	.	22	830722	83280	1	1	1	1	8
021		SOFT WHITE WINTER WHEAT	CULDESAC, ID	W. MCPROUD	14	830744	83291	0	1	0	0	9
022		COLUMBIA BASIN SEEDS	MOSES LAKE, WA	D. WALKER	5	830758	83285	0	1	0	0	8
023		HESSIAN FLY EXP. 07	PULLMAN, WA	C.F. KONZAK	18	830763	83294	1	1	0	0	10
024		DUAL PURPOSE #20	LIND, ROYAL SLOPE, WA	C.F. KONZAK	8	830781	83300	1	1	0	0	10
025		PRELIMINARY SOFT WHITE (26,27,28)	PULLMAN, WA	C.F. KONZAK	12	830789	83306	0	1	0	0	10
026		PRELIMINARY HARD RED (80-85)	PULLMAN, WA	C.F. KONZAK	51	830801	83306	1	0	0	0	11
027		ADVANCED SOFT WHITE	PULLMAN, WA	C.F. KONZAK	31	830852	83311	0	1	0	0	10
028		ADVANCED HARD RED WINTER (I-IV)	LIND, WA	E. DONALDSON	33	830883	83308	1	0	0	0	11
029		PRELIMINARY HARD RED WINTER	LIND, WA	E. DONALDSON	245	830916	83308	1	1	0	0	11
030		ADVANCED HARD RED SPRING	LIND, WA	C.F. KONZAK	23	831161	83312	1	0	0	0	11
031		WESTERN PLANT BREEDERS HRS	WA	K. BOYD	4	831184	83300	1	0	0	0	12
032		SWW ELITE	CORVALLIS, OR	W.E. KRONSTAD	15	831188	83308	0	1	1	1	7
033		SWW REPLICATED ADVANCED NURSERY	PENDLETON, OR	W.E. KRONSTAD	11	831203	83308	0	1	1	1	8
034		SWW PRELIMINARY YIELD TRIAL	CORVALLIS, OR	W.E. KRONSTAD	132	831214	83308	0	1	0	0	7
035		SWW PRELIMINARY YIELD TRIAL	CORVALLIS, OR	W.E. KRONSTAD	1	831346	83308	0	1	0	0	7
036		STATE HARD RED SPRING	LIND, CONNELL WA	C.F. KONZAK	26	831347	83314	1	0	0	0	12
037		STATE SOFT WHITE SPRING	PULLMAN, R. SLOPE WA	C.F. KONZAK	24	831373	83314	0	1	1	1	10
038		FERTILIZER X VARIETY TEST	TULELAKE, CA	Y.P. PURI	12	831397	83325	1	0	0	0	9
039		FERTILIZER STUDY	TULELAKE, CA	Y.P. PURI	12	831409	83325	1	0	0	0	9
040		PRELIMINARY SOFT WHITE WINTER	PENDLETON, OR	C.R. ROHDE	18	831421	83325	0	1	0	0	8
041		ADVANCED SOFT WHITE WINTER	PENDLETON, OR	C.R. ROHDE	24	831439	83325	0	1	1	1	8
042		PRELIMINARY SOFT WHITE WINTER	PENDLETON, OR	C.R. ROHDE	26	831463	83325	0	1	1	1	8
043		ADVANCED SOFT WHITE WINTER	MORO, OR	C.R. ROHDE	18	831489	83325	0	1	0	0	7
044		ADVANCED HARD RED SPRING	MORO, OR	C.R. ROHDE	20	831507	83346	0	1	1	1	12
045		HARD RED WINTER WHEAT COUNCIL	ROYAL SLOPE, WA	C.F. KONZAK	20	831527	83348	1	0	0	0	12
046		ADVANCED SPRING WHEAT	KS, TX, NE, OK	C.R. ROHDE	20	831547	83350	1	1	1	1	8
047		BI-STATE SPRING WHEAT	PENDLETON, OR	C.R. ROHDE	22	831567	83350	1	1	1	1	12
048		ADVANCED HARD RED WINTER WHEAT	PENDLETON, OR	C.R. ROHDE	13	831589	83350	1	0	0	0	8
049		PULLMAN LATE SOFT	PULLMAN, WA	R.E. ALLAN	7	831602	83350	0	1	1	1	8
050		HRW WHEAT ELITE NURSERY	PENDLETON, OR	W.E. KRONSTAD	6	831609	83353	1	0	0	0	10



NURS CODE	NURS ID	NURSERY NAME	LOCATION	BREED	NOSAM	BLABNO	SDATE	BRCO	COCO	CACO	NOCO	PBAR
051		SWS ADVANCED WHEAT	CORVALLIS, OR	W.E. KRONSTAD	11	831615	83353	0	1	0	0	10
052		HRS ADVANCED WHEAT	CORVALLIS, OR	W.E. KRONSTAD	16	831626	83353	1	0	0	0	10
053		ELITE SPRING WHEAT	CORVALLIS, OR	W.E. KRONSTAD	12	831642	83353	0	1	0	0	10
054		WESTERN REGIONAL WHITE WINTER WHEAT	WA, ID, OR	.	32	831654	84009	0	1	1	1	8
055		WESTERN REGIONAL HARD RED WINTER WHEAT	WA, MT	.	27	831686	84009	1	0	0	0	11
056		WESTERN REGIONAL SPRING WHEAT	WA, ID, MT, OR	.	37	831713	84009	1	1	1	1	10
057		ISRAELI HIGH PROTEIN	BET-DAGAN, ISRAEL	M. ZUR	13	831750	84027	1	0	0	0	11
058		PNV COLLABORATIVE TESTS	PULLMAN, WA	.	7	831763	84040	0	1	1	1	8
059		EXPERIMENTAL VARIANT POLYPLOID WHEATS	RIVERSIDE, CA	J.G. WAINES	17	831770	84048	1	0	0	0	14
060		DRILL STRIPS	PULLMAN, ID, WA	.	65	831787	84048	1	1	1	1	9
061		SALINITY STUDY	RIVERSIDE, CA	J.D. RHOADES	12	831852	84088	1	0	0	0	10
062		LATE HARD RED WINTER	PULLMAN, WA	C.J. PETERSON	10	831864	84093	1	0	0	0	8
063		YIELD TEST PLOTS	ID, WA	C.J. PETERSON	16	831874	84121	0	1	0	0	8

KEY : NOSAM = NUMBER OF SAMPLES  
BLABNO = BEGINNING LAB NUMBER

SDATE = DATE SAMPLES RECEIVED

BRCO = BREAD CODE  
COCO = COOKIE CODE  
CACO = CAKE CODE  
NOCO = NOODLE CODE  
PBAR = NURSERY MEAN  
PROTEIN = PROTEIN MEAN

NOCO = NOODLE CODE

PBAR = NURSERY MEAN PROTEIN



## ABBREVIATION DESCRIPTION

We have implemented a computer program to store, calculate, and retrieve our milling and baking data. The following is a list of abbreviations used as column headings in the following tables of data.

NURSCO - Nursery Code Number (located upper left corner of table).  
 LABNUM - Laboratory Number (first two digits crop year).  
 VAR - Variety or selection name.  
 IDNO - CI or Selection Identification Number.  
 TWT - Test weight in lbs/bu.  
 FASH - Flour ash percent at 14% moisture basis.  
 FYELD - Percent of flour obtained.  
 MSCOR - Milling score.  
 FPROT - Flour protein percent at 14% moisture basis.  
 FABSC - Farinograph water absorption corrected to 14% moisture basis.  
 FPEAK - Farinograph mixing peak time in minutes.  
 FSTAB - Farinograph stability in minutes.  
 BABS - Bake water absorption at 14% moisture basis.  
 BABSC - Bake absorption corrected to mean protein of nursery.  
 MTIME - Optimum mixing time in minutes.  
 LVOL - Bread loaf volume observed in cc's.  
 LVOLC - Bread loaf volume (cc) corrected for protein to the mean protein of the nursery. (See table 1 or 2, page ix )  
 BCRGR - Bread crumb grain rating code. (See table 3, page x)

CODE	MEANING
1	Excellent (S*)
2	Satisfactory (S)
3	(Q-S)
4	Questionable-Satisfactory (Q-S)
5	(Q-§)
6	Questionable (Q)
7	(Q-Ø)
8	Questionable-Unsatisfactory (Q-U)
9	Unsaftisfactory (U)

CODI - Cookie diameter in cm's.  
 CODIC - Cookie diameter (cm) corrected for protein to the mean protein of the nursery. (See table 1 or 2, page ix )  
 VISC - Brookfield viscosity (observed)  
 VISCC - Brookfield viscosity corrected for protein to the mean protein of the nursery.  
 CAVOL - Japanese Sponge Cake Volume in cc's.  
 SCSCOR - Sponge cake score (scale 1-100)  
 WTIN - Noodle weight increase (percent).  
 NYELD - Noodle yield.  
 NOSCORE - Noodle score (1-100)  
 MABS - Mixograph absorption at 14% moisture (%).  
 MABSC - Mixograph absorption corrected for protein (%).  
 MTYPE - Mixograph Type - From Mixograph Reference Chart.

RATE - Overall Rating when used see table 3.  
 REMKS - Remarks.

# Western Wheat Quality Laboratory

## INTERPRETATION OF DATA

As in the past reports, decisions were based on the results of the tests after adjustment to an average protein content of the nursery using correction factors derived from several years of data on particular varieties and/or classes of wheat. These correction factors and scale for ranking codes can be found in the following tables 1-3.

CORRECTION FACTORS - TABLE 1

VTN	VARIETY	(VC) LOAF VOLUME	(CC) COOKIE
1	Anza	61	0
2	Burt	51	.078
3	Coulee	76	.070
4	Fortuna	64	0
5	Gaines	38	.136
6	Hyslop	0	.137
7	Inia 66	68	0
8	Itana	60	0
9	Kharkof	57	0
10	Luke	0	.085
11	Marfed	61	.098
12	McCall	52	0
13	McDermid	0	.106
14	Moro	0	.094
15	Nugaines	62	.118
16	Omar	0	.083
17	Paha	0	.037
18	Sprague	0	.062
19	Springfield	0	.042
20	Twin	0	.149
21	Yamhill	0	.124
22	Wanser	69	0
23	Wared	62	0

Variety name (VAR) not found or where the value is zero in Table 1, use correction factor for class of sample in Table 2.

VTN = Computer system variety number



CORRECTION FACTORS - TABLE 2

CLASS	(VC) LOAF VOLUME	(CC) COOKIE
SWW	60	.110
SWS	60	.110
CLUB	55	.071
HRW	62	.080
HRS	62	.080
HWW	62	.080
HWS	62	.080

RANKING AND RATING CODES - TABLE 3

CODE BREAD CRUMB GRAIN	MEANING
1	Excellent (S*)
2	Satisfactory (S)
3	(Q-S)
4	Questionable-Satisfactory (Q-S)
5	(Q-S)
6	Questionable (Q)
7	(Q-U)
8	Questionable-Unsatisfactory (Q-U)
9	Unsatisfactory (U)

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INTRODUCTION

This is the Thirty-Sixth Annual Report of the Western Wheat Quality Laboratory of cooperative investigations with breeder, geneticists, and pathologists in the seven Western states to evaluate the milling and baking quality characteristics of experimental wheat selections grown and harvested as the 1983 crop. These investigations included several market classes and sub-classes of wheat which are commercially grown in the Pacific Northwest and the Western region and relates to their quality for commercial production and consumer acceptance. These studies deal with the physical-chemical flour properties associated with a wheat's suitability for commercial pastry and bread products.

The nurseries have been arranged in nurseries (Nursery Index in Table of Contents) and the varieties and selections are listed in the tables in order of their assigned laboratory Number. Mixograms were run on all samples evaluated, but none were reproduced for inclusion in this report. Alternately, each mixogram was characterized by type as described in the Methods Section.

1/ Research Food Technologist, Research Food Technologist, Research Food Technologist, Physical Science Technician, Physical Science Technician, Physical Science Technician, Biological Technician and Clerk-Typist, respectively, U.S. Department of Agriculture, Agricultural Research Service, Western Region, assigned to the Western Wheat Quality Laboratory, Wheat Genetics Unit, Pullman, Washington

2/ Credit is due Garrison King, Washington State University Laboratory Technician II for the flour milling and physical-chemical determinations made on early generation material. This work was supported by grant funds from the Washington Wheat Commission.

## METHODS USED BY USDA, WESTERN WHEAT QUALITY LABORATORY

All wheat samples were fumigated when received with 800 cc of methyl bromide/50 gal. drum overnight and then aerated, cleaned, scoured, test weight (1, Method 84-10) determined, sub-sampled for approximate analysis, and placed in the storeroom until experimentally milled by the following methods:

Buhler Milling: All of the 1982 samples of Advanced and Regional Nurseries were milled on a Buhler, pneumatic, laboratory mill. The samples were tempered to a predetermined moisture content ranging from 14.0% to 16.0%, depending on the hardness and the known flour-bolting properties. The harder wheats require the most water. Thus, the grain was conditioned so that the most rapid and most complete separation of endosperm could be made. The temper water contained a wetting agent (.1% Aerosol OT) to hasten moisture penetration and the tempered wheat was allowed to rest for 16-24 hours before milling to permit uniform distribution of the moisture. An additional 0.5% water was added 15-20 minutes prior to milling. The Buhler experimental mill schematic flow is shown in Figure 1.

All six flour streams were combined to make a straight-grade flour. The first and second break and first and second reduction streams were combined for a patent flour. All straight-grade flour was rebolted on a 120 stainless steel wire screen and blended thoroughly.

Flour Yield: The percent of the total products recovered as straight-grade white flour.

Milling Time: The minutes required to mill a 2000-gram sample with the Buhler experimental mill and obtain a normal separation of bran, shorts, and flour. Time is determined by visual observations and adjustments by an experienced miller.

Milling Score: Calculated as follows:

$$100 - [(80 - \text{flour yield}) + 50 (\text{Flour ash} - .30) + .48 (\text{Milling time} - 15) + .5 (65 - \% \text{ long patent}) + .5 (16 - \text{1st tempering moisture})]$$

Modified Quadurmat Milling Method: The preliminary nurseries were experimentally milled on Modified Quadurmat system (500g). The procedure was described in the 27th Annual Report, Oct. 1976 (pages 1-14). Conversion of the data to give a predicted Buhler flour yield and milling score was done with the following linear equations:

Flour Yield

Soft wheat ( $y = 14.0671 + .83474X$ )  
 Hard wheat ( $y = 13.4166 + .83298X$ )

Milling Score

Soft wheat ( $y = -21.60185 + 1.27367X$ )  
 Hard wheat ( $y = -3.43818 + 1.0448X$ )

The Modified Procedure is schematically shown in Figure 2. Modifications include those described by Jeffers and Rubenthaler (11).



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Hard wheat ( $y = 13.4166 + .83298X$ )

Milling Score

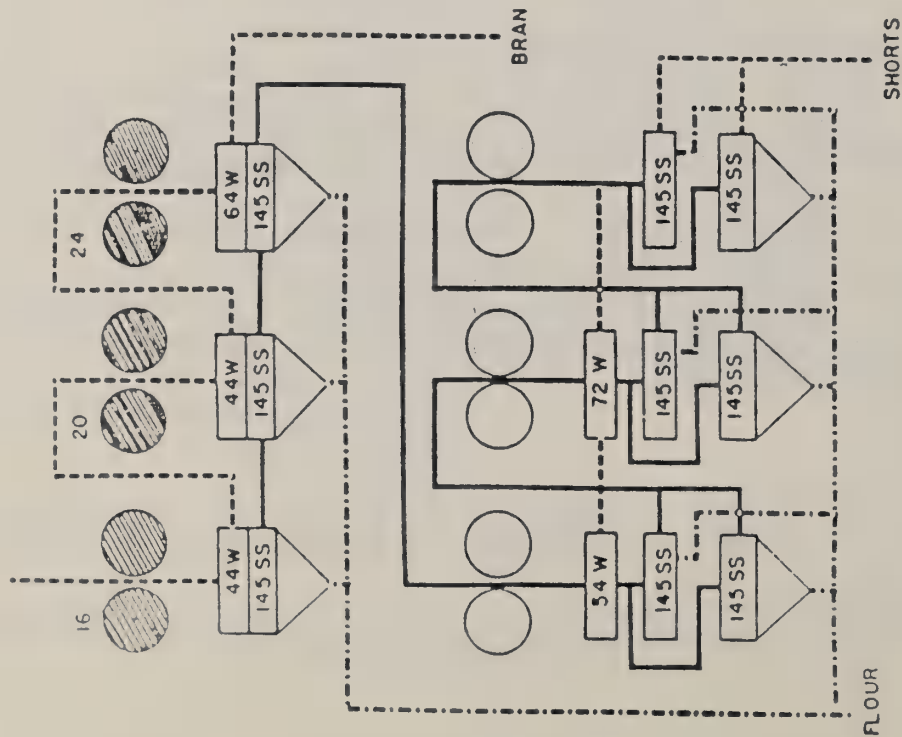
Soft wheat ( $y = -21.60185 + 1.27367X$ )  
Hard wheat ( $y = -3.43818 + 1.0448X$ )

The Modified Procedure is schematically shown in Figure 2. Modifications include those described by Jeffers and Rubenthaler (11).

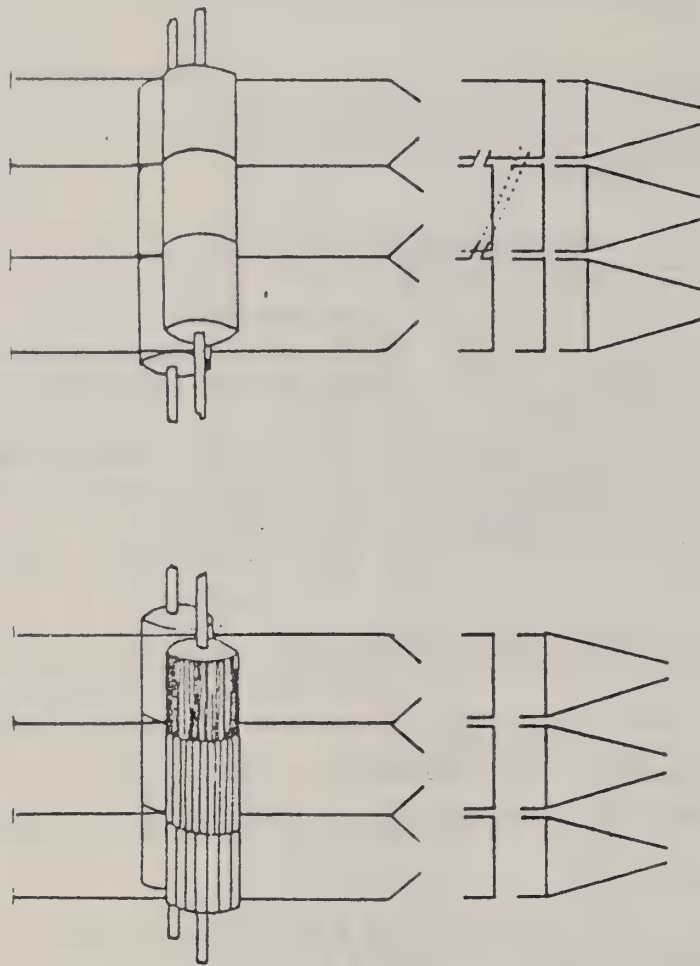


# BUHLER EXPERIMENTAL MILL

Clean Tempered  
Wheat



DIAMETER - 6 INCHES  
ROLLS: DIFFERENTIAL - 2 TO 1  
SURFACE - 300 SQUARE INCHES  
BOLTING SURFACE - 280 SQUARE INCHES

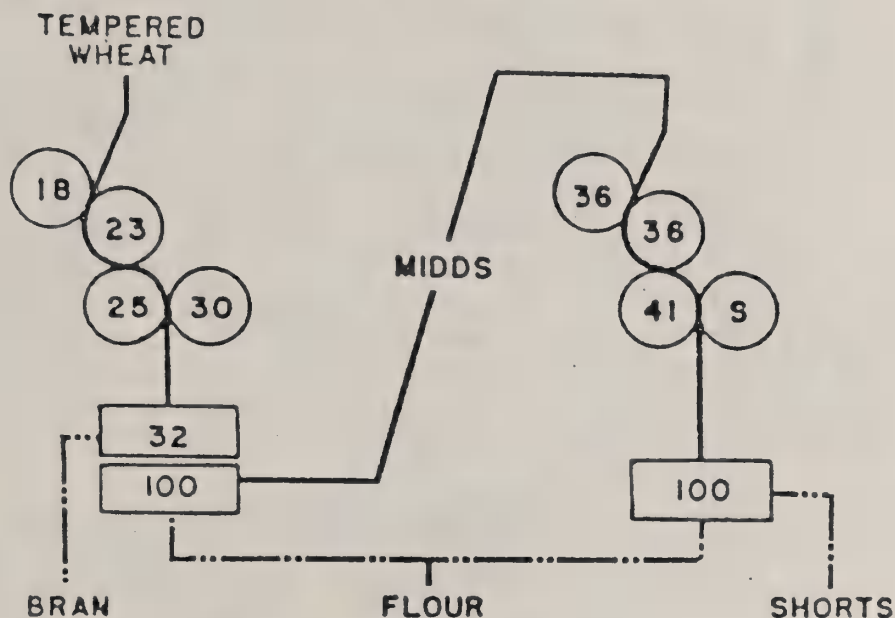


WHEAT TYPE	FEED RATE (G./MIN.)	FLOUR YIELD (%)	FLOUR ASH (%)
WHITE CLUB	145 - 160	73 - 75	0.39 - 0.41
HARD RED WINTER	115 - 130	68 - 73	.35 - .42
COMMON (SOFT) WHITE	90 - 120	67 - 72	.35 - .43

\* BASIS TOTAL PRODUCTS RECOVERED FROM MILL  
\*\* ASH CONTENT OF STRAIGHT-GRADE FLOUR

Figure 1. Schematic flow of the Buhler experimental mill showing a range of the average feed rates, flour yields, and flour ash of the various classes of wheat. Roll settings are varied for optimum clean-up and reduction of the stock, and feed rates according to the bolting and reduction properties.

# MODIFIED QUADRUMAT SR. MILLING PROCEDURE



## BREAK UNIT

BRABENDER QUADRUMAT JR. WITH  
QUADRUMAT SR BREAK ROLLS

## REDUCTION UNIT

BRABENDER QUADRUMAT SR.  
REDUCTION HEAD

### ROLLS:

DIAMETERS: 2.8 INCHES

#### SPEED:

FAST ROLLS: 1200 RPM

SLOW ROLLS: 560 RPM

DIFFERENTIAL: 2.14 TO 1

### TEMPER:

TO 15% FOR 24 HOURS WITH  
WETTING AGENT

SIFTERS: 8 INCH TYLER TESTING  
SIEVES ON ZELENY SEDIMENTATION  
SIEVE SHAKERS

### SIFTING SCHEDULE

#### BREAK STOCK:

BRAN: REMOVED AFTER 1 MIN.

MIDDLINGS: REMOVED AFTER AN  
ADDITIONAL 2 MIN. (3 MIN. TOTAL)

REDUCTION STOCK: 3 MIN.

SAMPLE SIZE: 100-250 GRAMS TEMPERED WHEAT  
(HELD CONSTANT WITHIN EACH COMPARISON GROUP)

OUTPUT: 5-7 SAMPLES PER HOUR

Figure 2. Semi micro experimental mill flow with the roll corrugations per inch. The break rolls have corrugation spirals of 1.25, 1.75, 1.88, and 1.25 inch/ft. in progressive order, and the middling reduction roll spirals are 1.25, 1.25, 1.25, and frosted smooth. Roll spacings for first, second and third break are 0.035, 0.0035, and 0.002 inch respectively. The middling rolls are set at 0.0015, 0.0020 and 0.0015 inch respectively.



Semi Micro Flour Quality:\* Wheats milled on the semi-micro mill which gave satisfactory flour yields were evaluated by the following tests and all others with unsatisfactory milling properties were discarded: NIR protein, mixograph (3, 9), and AWRC test (14,17) to distinguish whether they fit the sub-class of club or soft common and/or hard wheats.

Micro Milling of Single Plant Selections:\* The 5-10 gm samples of grain were accurately weighed, placed in vials, and water added to bring them to 14% moisture. The tempered grain was milled on the micro mill which consists of two pairs of corrugated rolls and double sifters with 38- and 135-mesh stainless steel screens. The bran over the 38-mesh sifters was evaluated for milling properties by visual examination for the degree of bran clean-up. The throughs of the 135-mesh stainless steel screen, of those samples considered to be good milling types, were examined for flour quality by means of the Modified Micro Sedimentation Method (12). Protein and lysine are determined on these materials by NIR analysis (16). A schematic flow diagram of the micro mill is shown in Figure 3 (2, 13).

Moisture Content of Wheat & Flour: These values have not been given in these reports, but the methods are as follows: The reference test is two grams of ground wheat in an aluminum moisture dish are heated in a forced draft oven for 40 minutes at 140° C., allowed to cool in a desiccator and weighed. Flour Moisture is determined in the same manner except that it is heated only 20 minutes. The NIR (Technicon 400) is routinely used as calibrated to the above method.

Ash of Wheat and of Flour: The ash from a 4-gram sample of wheat meal or flour heated for 15 hours at 550° C. in a muffle furnace. (1, Method 08-01).

Protein of Wheat and Flour: The protein content of the samples was determined by the NIR method, and checked (about 10% of the material) by the Kjeldahl method (1, Method 46-12).

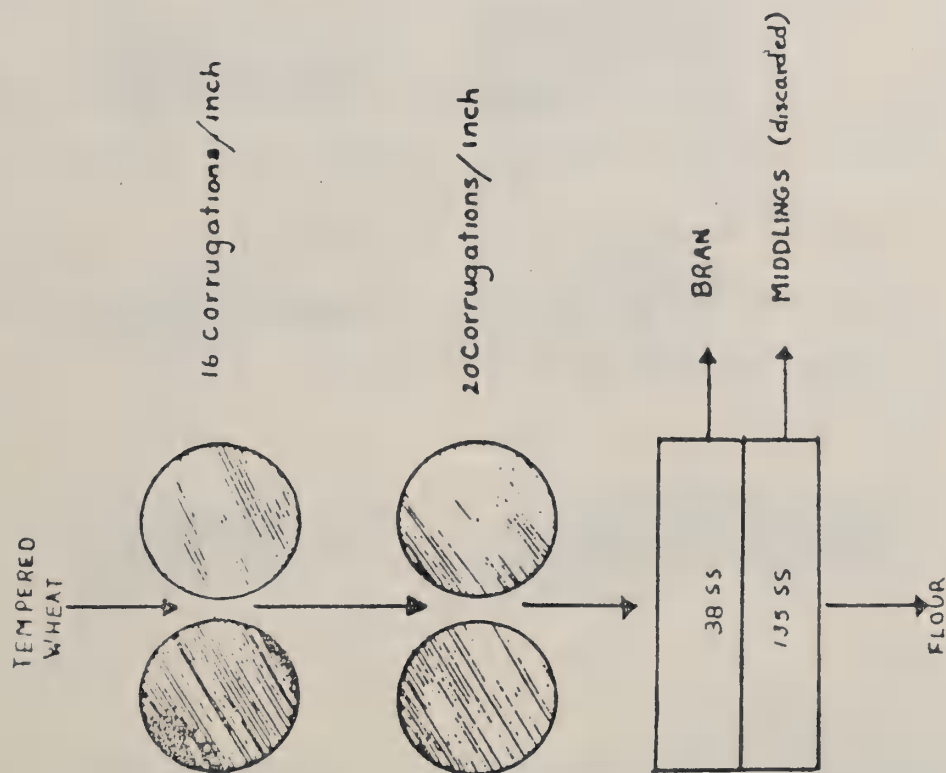
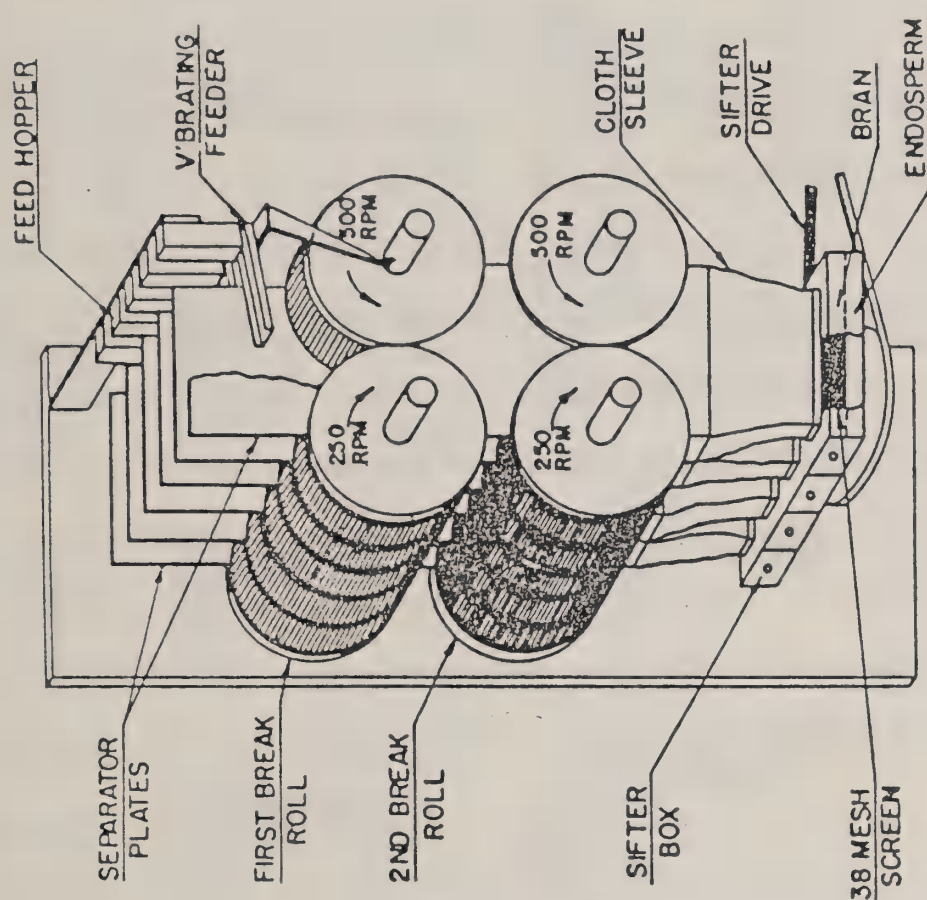
Alkaline Water Retention Capacity (AWRC): The percent increase in weight of 7.5 g flour due to absorption of water from 35 ml of .1 normal  $\text{NaHCO}_3$  solution (17).

Viscosity: Dial reading x 7.5 of a RVT Brookfield Synchro-Lectric Viscometer fitted with a No. 2 spindle at 50 R.P.M. using a suspension of 20 grams of flour in 100 ml of water and 7 ml of 1 N lactic acid (15).

Mixogram: Used to characterized new selections as to market class and estimate baking properties. The recently developed 10 gm instruments were used and the testing procedure and interpretation of K.F. Finney(9) was followed. To reduce the time and expense involved in reproducing the mixograms a reference chart was developed to characterize each curve as to type ranging from very weak to exceptionally long and strong types. The chart and instructions for its use are found on pages 7 and 8.

\*Supported by special grant of funds from the Washington Department of Agriculture and the Washington Wheat Commission to permit extensive early generation ( $F_3$ - $F_4$ ) testing.

# MICRO-MILL FLOW



ROLL SPACING 1B .012 INCH  
2B .0025 "

Figure 3. Schematic and flow of the micro experimental mill. Four samples are milled and sifted simultaneously and feed rate is held constant by a vibratory feeder.



## USE OF MIXOGRAM REFERENCE CHART

In addition to determining mixing time for optimum dough development by observation during baking test, mixing time and mixing tolerance, two important baking properties of wheat flour, can be determined independently from a mixogram. A mixogram is determined with 10g of flour and appropriate amount of water to give optimum absorption. It is really nothing more than a recording mixer reflecting the resistance the dough has to be mixed over a period of time. Most mixograms are run either 7 or 8 minutes which is sufficient time for most flours to give a full picture of their mixing time and to show what happens when mixing continues beyond this point (mixing peak) as reflected in the tail of the curve and commonly referred to as tolerance.

Final evaluation must be made with consideration given to the protein content of the flour, because of the effect protein content has on the mixing characteristics within the same variety. As protein increases, mixing time will decrease with an apparent increase of tolerance. To illustrate this, compare #1 high(H) with #2 medium (M) and #3 low (L) which are typical mixograms of the club wheat Paha at 12, 9, and 6% protein respectively. Similarly, 2H, 3M, and 4L are typical for Nugaines at these protein levels. Little change can be observed on any wheat above 13.0 or below 7.5% protein.

This chart will be used to identify the curve characteristics which most closely fit the sample and will be reported as numbers 1L, 1M, 1H, etc. through 8H.

# MIXOGRAM REFERENCE CHART

LOW

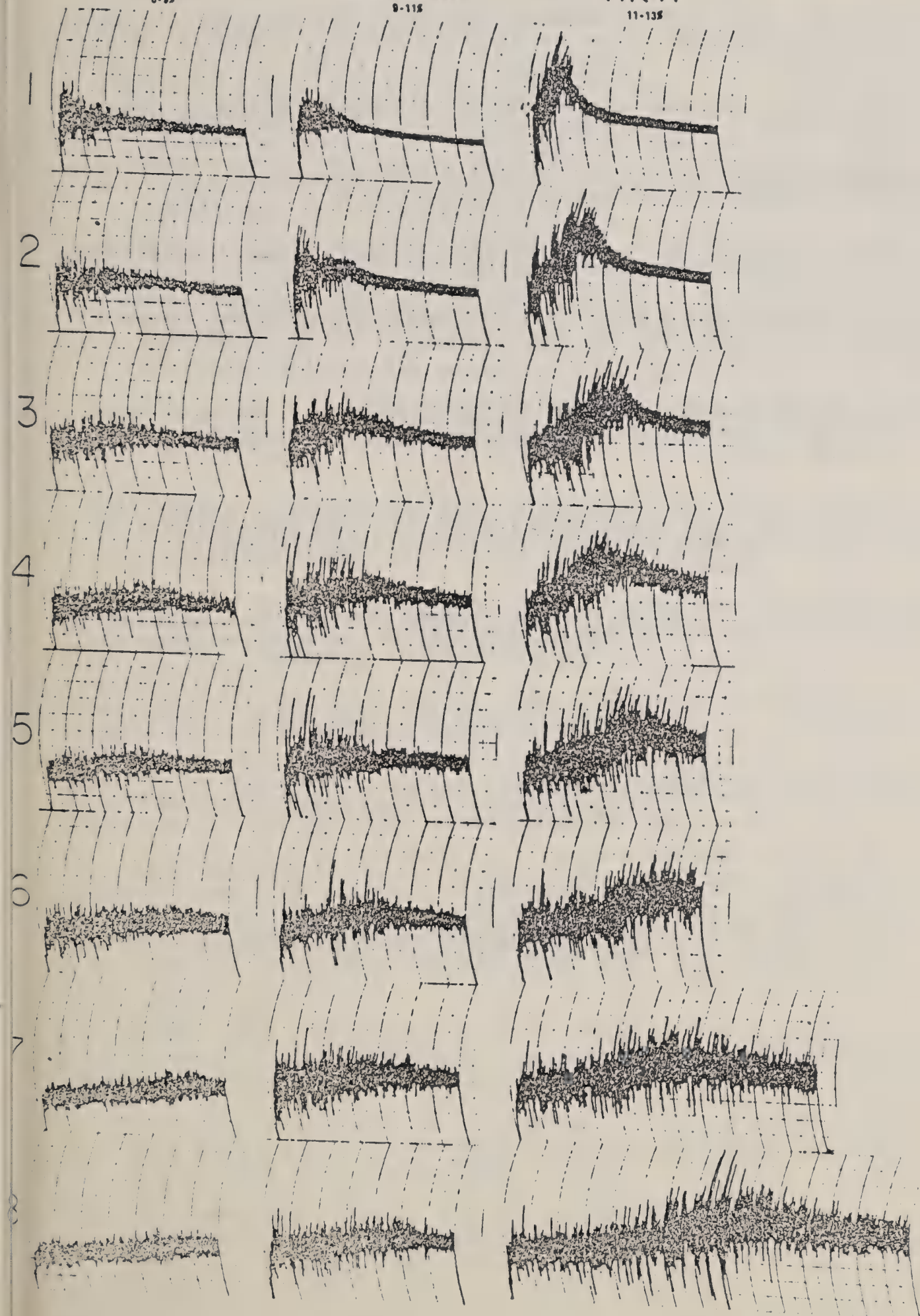
6-95

MEDIUM

9-115

HIGH

11-135



Cookie Baking: 40 g of flour, micro method, using 25% absorption, 60% sugar, 30% emulsified shortening, 3% dry skim milk, 1%  $\text{NH}_4\text{HCO}_3$ , 1% NaCl, 1%  $\text{NaHCO}_3$ , was employed (8).

Cookie Diameter is the average diameter, in centimeters, of cookies baked on two separate days.

Farinograph: The Farinograph was equipped with a 50-g bowl and the Constant Flour Weight Procedure was employed (1, Method 54-21A).

Farinograph Absorption is the amount of water required to center the highest portion of the Farinograph curve on the 500 unit line.

Peak or Farinograph Mixing Time is the time interval, in minutes, from the first addition of water until the tip of the curve reaches its maximum height.

Stability of Period of Resistance is the number of minutes the top of curve remains above the 500 unit line when the highest portion (peak) is centered on the 500 unit line.

Bread Baking: An optimum absorption, optimum mixing, optimum bromate, 100 g flour and straight dough method using 7.2% yeast, 1 1/2% salt, 6% sugar, 1/4% malt extract, 4% dry milk solids, 65 ppm ascorbic acid, and 3% hydrogenated shortening was employed (5,6,7,10).

Baking Absorption: The amount of water required to make a dough of proper consistency for bread baking when mixed to optimum conditions as judged by an experienced baker using the baking method described above (4).

Mixing Time: Time in minutes required to mix the flour and the other bread dough constituents to the optimum condition as judged by an experienced baker (5).

Optimum Bromate: The amount of potassium bromate required to produce the optimum break, shred, crust, and grain characteristics of the loaf of bread (5).

Flour Color: The slurry method using 20 g of flour, 25 ml of water, stirred for 2 minutes with a glass stirring rod fitted with a 11mm policeman, and allowed to stand for 5 minutes. Reading is taken on an Agtron ( $F_2$ ) calibrated with standard color discs #63 = 0 and #85 = 100.



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(Jan. 1 - Dec. 31/84)

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2. Rubenthaler, G.L. Wheat Hardness Determination. 7th International Symposium on Near Infrared Analysis. Proceedings - Tarrytown, NY, July. 1984
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## INVITED TECHNICAL PRESENTATIONS

Rubenthaler, G.L., 1984

Presented seminar "Breeding Wheat for Quality" and tour of Laboratory for Washington County Extension Service Agents, Pullman, Washington, January 16, 1984.

Presented results of NIR wheat hardness studies at Wheat Classing Workshop ARS/FGIS, Beltsville, MD, March 8, 1984.

Presented a talk "Functions and Activities of the Western Wheat Quality Lab.", to Nez Perce and Lewis County Wheat Growers Association, Craigmont, Idaho, March 20, 1984.

Presented a talk "Soft White Wheat Quality in the Market Place", to Chamber of Commerce, Moscow, Idaho, May 2, 1984.

Presented seminar "Function and Role of Western Wheat Quality Lab." to a visiting Egyptian Wheat Team, Pullman, Washington, May 25, 1984.

Presented paper "Wheat Hardness Determination" 7th International NIRA Symposium, Tarrytown, New York, July 10, 1984. (#98)

Presented a seminar and Lab tour (3 hrs.) "Function and Role of the Western Wheat Quality Lab" to U.S. Wheat Associates -- Korean Wheat Team, August 8, 1984.

Presented a seminar and Lab tour (3 hrs.) "Function and Role of The Western Wheat Quality Lab", to U.S. Wheat Associates -- Japanese Government Team, August 29, 1984.

Presented a seminar and Lab tour (3 hrs.) "Wheat Quality Components", to visiting PRC Delegation of Chinese Physiology/Biochemistry Study Group, September 4, 1984.

Presented a seminar and Lab tour (3 hrs.) "Bread Made from Soft White Wheats", to U.S. Wheat Associates -- India Trade Team, September 7, 1984.

Presented a seminar and Lab tour (3 hrs.) "Function and Role of the Western Wheat Quality Lab.", to U.S. Wheat Associates -- Tiawan Flour Millers Team, September 14, 1984.

Presented a paper "Determining Wheat Hardness by NIR" at Joint Annual Technical meeting of PNW-AACC Section/PNW District Association of Operative Millers, Great Falls, MT, September 28, 1984.

Western Wheat Quality Laboratory  
1983 Crop

VISITORS

The Western Wheat Quality Laboratory Staff was pleased to have had the opportunity to meet, discuss, and give tours of our facilities with some 121 visitors this past year. Several of these people were wheat breeders, grain buyers, flour millers, students and various government officials with an interest in wheat quality. The following is a list, not all inclusive, to those who visited our facilities and signed our guest book:

U. of I. Investigation of Foods	14
W.S.U. Agronomy and Soils Dept. Cereals Quality Class	20
W.S.U. Food Science & Human Nutrition, Food Analysis	18
U.S. Wheat Workers	22
<u>Foreign:</u>	
Australia	2
Egypt	5
France	2
India	4
Japan	9
Korea	5
Morocco	1
Pakistan	1
Peoples Republic of China	13
Tiawan	5

EARLY GENERATION NURSERIES  
1983 Crop

NURSERY	LOCATION	BREEDER	CLASS	NUMBER TESTED	NUMBER PROMISING
Soft White Yield Trial	Ritzville	C.J. Peterson	SWW	120	74
Soft White (Single Plot)	Pullman	Konzak/Davis	SWW	95	61
Hard Red (Single Plot)	Pullman	Konzak/Davis	HRW	84	51
Hessian Fly	Pullman	Konzak/Davis	SWS	12	3
Management Trials	Pullman	Allan/Pritchett	SWW	706	0
Foot Rot	Pullman	R.E. Allan	SWW	73	46
Club Nursery	Walla Walla	R.E. Allan	Club	77	53
Adv. 2-Gene & Restorers	Walla Walla	R.E. Allan	SWW	34	18
New 2-Gene Dwarfs	Pullman	R.E. Allan	SWW	44	0
New Restorers	Pullman	R.E. Allan	SWW	30	11
F-5 Commons	Pullman	R.E. Allan	SWW	72	24
Reselect TCK & CB Lines		Allan/Pritchett	SWW	47	14
F-5 Clubs	Pullman	R.E. Allan	Club	59	56
NC Hybrid	Walla Walla	R.E. Allan	SW & HR	24	0
NC Hybrid - Early	Pullman	R.E. Allan	SW & HR	24	0
NC Hybrid - Late	Pullman	R.E. Allan	SW & HR	24	0
NC Hybrid - Management	Pullman	R.E. Allan	SW & HR	12	0
EE Bkhl. by NGN & Paha	Walla Walla	R.E. Allan	SWW	160	112
EE Bkhl. by NGN & Paha - Late	Pullman	R.E. Allan	SWW	160	118
Spring Spray Trial	P6 SE	R.E. Allan	SWW	368	0
Pullman Early Exp. #10	Pullman	M. Davis	HRS	57	25
Exp. #13	Royal Slope	M. Davis	HRS	45	39
Snow Mold	Douglas Co., WA	G.W. Bruehl	SW & HR	44	33



USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

## INTERNATIONAL PLANT BREEDERS ADV. HRS

NURSCO 1

YUMA, AZ

HAL A. LEWIS

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	MSCOR	FASH <u>1/</u>	FPROT <u>1/</u>	WPROT	MABSC <u>3/</u>	MTYPE
830001	YECORA ROJO	UC112	HRS	64.6	64.0	71.2	0.42	11.0	12.5	62.3	3H
830002	YOLO	UC353	HRS	65.3	67.2	77.6	0.40	8.6	10.2	60.2	1H
830003	ANZA	C115284	HRS	65.1	66.1	75.2	0.41	8.2	10.4	61.0	1H
830004		IS8312	HWS	65.1	63.2	69.6	0.43	9.7	11.2	61.3	3H
830005		IS8314	HRS	64.3	70.9	84.0	0.40	11.3	12.3	66.6	4H
830006		IS8316	HWS	64.8	66.4	73.1	0.47	10.1	11.8	67.9	4H
830007		IS8319	HRS	63.4	65.8	72.1	0.48	9.0	11.0	61.9	2H
830008		IS8322	HRS	64.8	69.1	78.7	0.44	10.1	11.3	64.7	2H
830009		IS8325	HRS	66.2	60.3	63.5	0.48	10.8	12.3	62.8	2H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 1

YUMA, AZ

HAL A. LEWIS

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
830001	YECORA ROJO	UC112	HRS	65.5	64.5	3.6	925	863		4 VP-MTIME, LVOL, BCRGR
830002	YOLO	UC353	HRS	59.0	60.4	1.0	775	862		9 VP-MTIME, LVOL, BCRGR
830003	ANZA	C115284	HRS	58.4	60.2	1.0	570	680		9 VP-MTIME, LVOL, BCRGR
830004		IS8312	HWS	65.2	65.5	4.1	705	724		9 VP-LVOL, BCRGR
830005		5/IS8314	HRS	72.1	70.8	3.4	925	844		2
830006		IS8316	HWS	72.2	72.1	4.1	820	814		4 Q-FYELD, LVOL, BCRGR
830007		IS8319	HRS	65.1	66.1	2.7	550	612		9 VP-LVOL, BCRGR
830008		6/IS8322	HRS	69.0	68.9	2.5	805	799		2 Q-LVOL
830009		IS8325	HRS	67.8	67.0	2.6	780	730		9 VP-FYELD, LVOL, BCRGR

COMMENTS: These samples were evaluated in co-operation with International Plant Breeders. Two selections, IS8314 and IS8322 appear to have promising overall quality characteristics for hard red spring wheat. Milling properties of the check varieties were lower than normal, but used as a reference for the experimental selections. Proteins were lower than desirable levels, which influence loaf volume.





NURSCO 2

CORVALLIS, OR

P.H. KRUMPERMAN

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
830010	A--OSU FOOD SCIENCE		SWW	60.0	72.5	0.43	79.1	7.8	53.8	2L
830011	B--OSU FOOD SCIENCE		SWW	59.7	72.2	0.45	78.0	7.9	53.2	5L
830012	C--OSU FOOD SCIENCE		SWW	59.3	72.5	0.46	77.9	7.8	53.5	8L

LABNUM	VARIETY	IDNO	CLASS	CODI	CODIC	CAVOL	SCSOR	WTIN	NOSCO	RMKS
					<u>4/</u>					
830010	A--OSU FOOD SCIENCE		SWW	8.99	8.97	1325	79.0	366	77	
830011	B--OSU FOOD SCIENCE		SWW	8.85	8.84	1320	77.0	369	76	
830012	C--OSU FOOD SCIENCE		SWW	8.77	8.75	1290	76.0	363	75	

1/ Observed Values Corrected to 14% Moisture Basis.2/ Absorption at 14% Moisture Corrected to 8% Protein.3/ Observed Values Corrected to 8% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

## COMMENTS:

These three soft white winter wheats were experimentally milled and baked in co-operation with a study by Dr. P.H. Krumperman, Department of Food Science at Oregon State University. No difference in milling quality was found. Sample A is slightly better than B or C in cookie diameter, cake score, and noodle score, but not significant.



NURSCO 3

DAVIS, CA

H.E. VOGT

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
830013	ANZA X CAJEME 71	CA71503-14D-0D-1D-0D								
830014	" -15D-0D-3D-0D	303/1E1	HRW	64.0	72.3	0.41	86.3	8.0	57.8	7L
830015	" -35D-0D-3D-0D	303/2E2	HRW	64.8	68.7	0.40	83.2	8.8	55.7	8M
830016	" -60D-0D-3D-0D	303/3E3	HRW	64.8	71.4	0.41	85.5	9.1	57.4	8M
830017	" -69D-0D-1D-0D	303/4E4	HRW	63.6	70.3	0.42	84.0	8.1	56.5	6L
		303/5E5	HRW	64.8	72.9	0.41	86.8	8.7	56.8	2M
830018	" -79D-0D-2D-0D	303/6E6	HRW	64.4	70.5	0.38	86.3	7.9	56.4	2L
830019	" -88D-0D-3D-0D	303/7E7	HRW	63.2	72.2	0.41	86.2	8.8	56.9	4M
830020	" -97D-0D-3D-0D	303/8E8	HRW	62.0	71.6	0.43	85.0	8.1	54.8	3L
830021	" -?	303/9E9	HRW	64.4	72.6	0.39	87.7	7.7	55.7	2L
830022	" -81D-1D-1D-1D-3D-0D	303/10E10	HRW	65.2	72.1	0.42	85.9	8.7	55.1	8M
830023	" -127D-2D-4D-3D-1D-0D	303/11E11	HRW	61.6	69.3	0.48	79.8	7.6	56.3	6L
830024	" -155D-4D-4D-2D-3D-0D	303/12E12	HRW	64.0	73.2	0.43	86.3	8.7	55.1	5M
830025	" -267D-4D-1D-3D-1D-0D	303/13E13	HRW	62.8	71.8	0.41	85.8	7.8	55.7	2L
830026	" -267D-4D-1D-3D-3D-0D	303/14E14	HRW	63.6	71.4	0.40	86.0	7.8	53.7	2L
830027	" -268D-4D-4D-2D-1D-0D	303/15E15	HRW	63.6	70.9	0.43	83.8	8.9	55.0	3M
830028	" -98D-3D-3D-3D-3D-0D	303/16E16	HRW	65.6	71.1	0.39	86.5	9.2	57.2	7M
830029	" -?	303/17E17	HRW	64.4	72.3	0.40	86.8	7.3	54.4	2L
830030	" -302D-2D-4D-2D-0D	303/18E18	HRW	64.0	71.1	0.42	84.7	8.1	54.6	5L
830031	" -313D-3D-3D-1D-0D	303/19E19	HRW	62.4	69.5	0.42	83.1	7.8	56.4	8M
830032	" -314D-4D-2D-3D-0D	303/20E20	HRW	63.6	72.3	0.42	85.7	8.4	55.8	8M
830033	" -330D-1D-2D-2D-0D	303/21E21	HRW	64.4	73.1	0.42	86.7	7.6	55.2	2L
830034	" -369D-3D-3D-2D-0D	303/22E22	HRW	64.4	69.5	0.42	82.9	8.3	57.7	4M
830035	" -?	303/23E23	HRW	62.0	69.5	0.42	83.0	9.4	58.1	8M
830036	" -?	303/24E24	HRW	64.4	72.1	0.40	87.0	7.5	55.0	2L
830037	" -369D-3D-3D-2D-0D	303/25E25	HRW	63.2	71.6	0.47	82.8	8.4	55.1	3L
830038	" -370D-2D-3D-3D-0D	303/26E26	HRW	63.6	71.2	0.46	82.8	8.9	57.1	3M
830039	" -371D-1D-1D-3D-0D	303/27E27	HRW	62.0	69.2	0.46	80.5	7.1	56.3	5L
830040	" -371D-2D-2D-2D-0D	130/28E28	HRW	62.8	70.7	0.43	84.0	7.9	56.1	5L
830041	" -373D-1D-1D-2D-0D	303/29E29	HRW	62.8	70.1	0.46	81.6	8.3	55.0	4L
830042	" -373D-2D-3D-2D-0D	303/30E30	HRW	62.8	69.2	0.52	77.7	8.2	57.3	3M
830043	" -378D-4D-2D-1D-0D	303/31E31	HRW	63.2	72.4	0.53	80.3	8.0	54.2	3M
830044	" -381D-2D-1D-2D-0D	303/32E32	HRW	62.8	71.8	0.50	81.3	8.4	54.9	2M
830045	" -394D-1D-1D-2D-0D	303/33E33	HRW	64.4	72.2	0.38	88.0	8.6	53.8	2M
830046	" -394D-4D-2D-2D-0D	303/34E34	HRW	64.4	72.8	0.42	86.4	8.0	53.8	4L
830047	" -12D-1D-4D-3D-0D	303/35E35	HRW	62.4	69.9	0.46	81.5	7.8	53.6	4L

1/ Observed Values Corrected to 14% Moisture Basis. 5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 8% Protein. 6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 8% Protein.

COMMENTS: Analysis were done in co-operation with Dr.'s Calvin Qualset, U. of C., Davis, CA, Michel Rousset, Clermont-Ferrand, France, and Jose Carrillo, Madrid Spain. Statistical analysis will be conducted at UC, Davis to interrelate baking properties with electrophoretic patterns.





NURSCO 3

DAVIS, CA

H.E. VOGT

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
830013	ANZA X CAJEME 71	303/1E1	HRW	59.5	59.5	4.9	910	910	5	
830014	" -15D-0D-3D-0D	303/2E2	HRW	63.7	62.9	5.4	860	810	5	
830015	" -35D-0D-3D-0D	303/3E3	HRW	63.2	62.1	5.6	913	845	2	
830016	" -60D-0D-3D-0D	303/4E4	HRW	58.8	58.7	3.1	885	879	4	
830017	" -69D-0D-1D-0D	303/5E5	HRW	57.7	57.0	1.9	875	832	5	
830018	" -79D-0D-2D-0D	303/6E6	HRW	59.5	59.6	3.3	735	741	9	
830019	" -88D-0D-3D-0D	303/7E7	HRW	58.9	58.1	2.4	950	900	2	
830020	" -97D-0D-3D-0D	303/8E8	HRW	59.1	59.0	3.2	790	784	8	
830021	" -?	303/9E9	HRW	57.1	57.4	1.9	825	844	6	
830022	" -81D-1D-1D-3D-0D	303/10E10	HRW	60.0	59.3	4.0	915	872	2	
830023	" -127D-2D-4D-3D-1D-0D	303/11E11	HRW	60.6	61.0	6.5	780	805	9	
830024	" -155D-4D-4D-2D-3D-0D	303/12E12	HRW	58.0	57.3	3.1	900	857	8	
830025	" -267D-4D-1D-3D-1D-0D	303/13E13	HRW	56.7	56.9	2.0	845	857	8	
830026	" -267D-4D-1D-3D-3D-0D	303/14E14	HRW	54.7	54.9	2.1	840	852	8	
830027	" -268D-4D-4D-2D-1D-0D	303/15E15	HRW	60.4	59.5	3.1	885	829	3	
830028	" -98D-3D-3D-3D-3D-0D	303/16E16	HRW	60.6	59.4	3.8	900	826	3	
830029	" -?	303/17E17	HRW	55.7	56.4	1.7	775	818	8	
830030	" -302D-2D-4D-2D-0D	303/18E18	HRW	58.4	58.3	3.8	850	844	9	
830031	" -313D-3D-3D-1D-0D	303/19E19	HRW	63.9	64.1	6.0	880	892	5	
830032	" -314D-4D-2D-3D-0D	303/20E20	HRW	60.4	60.0	4.7	935	910	6	
830033	" -330D-1D-2D-2D-0D	303/21E21	HRW	56.0	56.4	1.6	800	825	9	
830034	" -369D-3D-3D-2D-0D	303/22E22	HRW	61.2	60.9	2.9	845	826	6	
830035	" -?	303/23E23	HRW	64.2	62.8	7.9	920	833	2	
830036	" -?	303/24E24	HRW	55.7	56.2	2.1	750	781	9	
830037	" -369D-3D-3D-2D-0D	303/25E25	HRW	56.7	56.3	2.4	860	835	8	
830038	" -370D-2D-3D-3D-0D	303/26E26	HRW	61.2	60.3	2.8	880	824	7	
830039	" -371D-1D-1D-3D-0D	303/27E27	HRW	60.1	61.0	4.2	765	821	9	
830040	" -371D-2D-2D-2D-0D	130/28E28	HRW	60.2	60.3	4.0	900	906	2	
830041	" -373D-1D-1D-2D-0D	303/29E29	HRW	59.5	59.2	5.4	865	846	8	
830042	" -373D-2D-3D-2D-0D	303/30E30	HRW	61.7	61.5	4.0	805	793	9	
830043	" -378D-4D-2D-1D-0D	303/31E31	HRW	55.9	55.9	3.0	805	805	8	
830044	" -381D-2D-1D-2D-0D	303/32E32	HRW	55.5	55.1	2.0	810	785	8	
830045	" -394D-1D-1D-2D-0D	303/33E33	HRW	54.6	54.0	2.3	790	753	8	
830046	" -394D-4D-2D-2D-0D	303/34E34	HRW	57.0	57.0	3.2	820	820	8	
830047	" -12D-1D-4D-3D-0D	303/35E35	HRW	58.1	58.3	3.7	810	822	8	



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LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
830048 "	-12D-2D-3D-3D-0D	303/36E36	HRW	64.0	70.0	0.44	82.4	7.9	56.3	4L
830049 "	-19D-1D-1D-3D-0D	303/37E37	HRW	62.8	69.4	0.41	83.6	7.8	54.5	8L
830050 "	-57D-1D-4D-2D-0D	303/38E38	HRW	65.6	69.8	0.42	83.2	8.9	57.5	6M
830051 "	-57D-2D-4D-3D-0D	303/39E39	HRW	64.8	70.0	0.43	83.2	9.4	55.3	3M
830052 "	-58D-1D-4D-2D-0D	303/40E40	HRW	64.4	69.1	0.44	81.6	8.0	57.8	5M
830053 "	-58D-3D-4D-1D-0D	303/41E41	HRW	64.4	69.3	0.45	81.2	7.8	55.9	3L
830054 "	-65D-2D-2D-3D-0D	303/42E42	HRW	62.4	70.2	0.45	82.3	7.8	54.8	5L
830055 "	-72D-1D-2D-3D-0D	303/43E43	HRW	64.8	72.2	0.39	87.4	7.6	55.3	2L
830056 "	-74D-2D-4D-4D-0D	303/44E44	HRW	64.0	72.2	0.41	86.4	7.4	55.9	3L
830057 "	-40D-1D-1D-2D-0D	303/45E45	HRW	65.2	72.1	0.40	86.7	7.5	54.3	2L
830058 "	-53D-2D-3D-1D-0D	303/46E46	HRW	64.4	69.5	0.45	81.6	8.2	55.2	4L
830059 "	-76D-2D-2D-2D-0D	306/47E47	HRW	64.0	68.8	0.48	78.9	9.6	56.8	7M
830060 "	-77D-3D-2D-3D-0D	303/48E48	HRW	64.0	69.2	0.45	81.3	9.1	58.2	6M
830061 "	-?	303/49E49	HRW	64.8	72.0	0.41	86.3	7.2	54.2	2L
830062 "	-134D-3D-3D-2D-0D	303/50E50	HRW	64.0	70.7	0.41	84.7	7.9	54.8	2L
830063 "	-139D-3D-2D-1D-0D	303/51E51	HRW	64.4	70.1	0.43	83.2	8.6	53.4	3L
830064 "	-150D-1D-1D-1D-0D	303/52E52	HRW	65.2	71.8	0.37	88.0	8.7	55.9	2M
830065 "	-?	303/53E53	HRW	65.2	72.1	0.39	87.3	7.2	53.1	2L
830066 "	-150D-1D-4D-1D-0D	303/54E54	HRW	64.0	69.5	0.41	83.5	7.6	55.6	3L
830067 "	-152D-2D-3D-3D-0D	303/55E55	HRW	62.0	68.7	0.48	79.0	7.3	55.4	4L
830068 "	-154D-4D-1D-1D-0D	303/56E56	HRW	63.6	69.1	0.44	81.4	7.7	55.3	3L
830069 "	-162D-4D-3D-1D-0D	303/57E57	HRW	63.2	69.6	0.47	80.4	8.2	55.6	6L
830070 ANZA		303/58E58	HRW	64.8	72.0	0.40	86.8	7.6	55.8	2L
830071 CAJEME 71		303/59E59	HRW	64.0	69.4	0.44	82.0	9.0	56.4	8L
830072 YECORA ROJO		303/60E60	HRW	64.2	69.1	0.44	81.7	8.5	57.9	8M
830073		303/61E37	HRW	62.8	68.6	0.42	82.3	7.5	54.7	8L
830074		303/62E19	HRW	63.6	69.1	0.42	82.8	8.1	54.9	5L
830075		303/63E29	HRW	64.0	69.1	0.44	81.8	8.4	53.6	8L
830076		303/64E28	HRW	62.8	68.4	0.44	81.1	7.5	53.0	8L
830077		303/65E49	HRW	64.0	70.7	0.40	85.2	7.3	54.0	2L
830078		303/66E20	HRW	64.8	71.0	0.46	82.5	8.6	52.8	8L
830079		303/67E47	HRW	64.0	69.4	0.53	77.3	9.8	56.4	8M
830080		303/68E22	HRW	64.8	68.3	0.44	80.9	8.7	55.2	3M
830081		303/69E17	HRW	64.0	70.7	0.41	84.9	7.4	54.4	1L
830082		303/70E11	HRW	62.4	68.3	0.45	80.3	6.8	55.6	5L





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LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
830048 "	-12D-2D-3D-3D-0D	303/36E36	HRW	62.9	63.0	3.8	850	856	4	
830049 "	-19D-1D-1D-3D-0D	303/37E37	HRW	59.0	59.2	5.4	840	852	5	
830050 "	-57D-1D-4D-2D-0D	303/38E38	HRW	65.6	64.7	5.6	878	822	2	
830051 "	-57D-2D-4D-3D-0D	303/39E39	HRW	61.9	60.5	3.3	920	833	2	
830052 "	-58D-1D-4D-2D-0D	303/40E40	HRW	62.0	62.0	3.2	870	870	5	
830053 "	-58D-3D-4D-1D-0D	303/41E41	HRW	61.4	61.6	3.4	825	837	4	
830054 "	-65D-2D-2D-3D-0D	303/42E42	HRW	56.8	57.0	3.8	850	862	5	
830055 "	-72D-1D-2D-3D-0D	303/43E43	HRW	54.1	54.5	2.0	793	818	5	
830056 "	-74D-2D-4D-4D-0D	303/44E44	HRW	56.5	57.1	2.6	875	912	2	
830057 "	-40D-1D-1D-2D-0D	303/45E45	HRW	53.0	53.5	2.2	780	811	6	
830058 "	-53D-2D-3D-1D-0D	303/46E46	HRW	59.6	59.4	4.7	855	843	4	
830059 "	-76D-2D-2D-2D-0D	306/47E47	HRW	64.1	62.5	5.3	900	801	2	
830060 "	-77D-3D-2D-3D-0D	303/48E48	HRW	63.5	62.4	4.0	905	837	2	
830061 "	-?	303/49E49	HRW	53.6	54.4	1.7	725	775	9	
830062 "	-134D-3D-3D-2D-0D	303/50E50	HRW	53.9	54.0	2.1	775	781	9	
830063 "	-139D-3D-2D-1D-0D	303/51E51	HRW	57.2	56.6	2.7	850	813	8	
830064 "	-150D-1D-1D-1D-0D	303/52E52	HRW	55.8	55.1	1.6	815	772	8	
830065 "	-?	303/53E53	HRW	54.5	55.3	2.0	740	790	8	
830066 "	-150D-1D-4D-1D-0D	303/54E54	HRW	58.4	58.8	3.1	815	840	8	
830067 "	-152D-2D-3D-3D-0D	303/55E55	HRW	58.9	59.6	4.3	835	878	7	
830068 "	-154D-4D-1D-1D-0D	303/56E56	HRW	57.2	57.5	2.6	790	809	6	
830069 "	-162D-4D-3D-1D-0D	303/57E57	HRW	60.5	60.3	5.4	875	863	4	
830070 ANZA		303/58E58	HRW	56.6	57.0	1.9	805	829	8	
830071 CAJEME 71		303/59E59	HRW	63.1	62.1	5.9	890	828	3	
830072 YECORA ROJO		303/60E60	HRW	62.6	62.1	8.2	915	884	2	
830073		303/61E37	HRW	59.4	59.9	6.0	800	831	8	
830074		303/62E19	HRW	63.7	63.6	4.7	800	794	9	
830075		303/63E29	HRW	60.7	60.3	5.7	810	785	8	
830076		303/64E28	HRW	59.2	59.7	3.5	825	856	8	
830077		303/65E49	HRW	55.5	56.2	2.4	660	703	9	
830078		303/66E20	HRW	60.1	59.5	5.1	898	861	3	
830079		303/67E47	HRW	64.4	62.6	5.7	855	743	8	
830080		303/68E22	HRW	63.1	62.4	2.9	810	767	6	
830081		303/69E17	HRW	54.0	54.6	2.5	675	712	9	
830082		303/70E11	HRW	61.6	62.8	5.6	775	849	9	



## QUALITY VS ELECTROPHORETIC BANDS

DAVIS, CA

H.E. VOGT

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
830083		303/71E23	HRW	64.8	69.8	0.45	82.0	8.9	56.1	8L
830084		303/72E16	HRW	66.0	71.8	0.43	85.0	9.8	56.7	8M
830085		303/73E3	HRW	64.8	71.3	0.43	84.4	9.3	58.0	7M
830086		303/74E39	HRW	64.4	69.5	0.44	82.1	9.3	56.2	3L
830087		303/75E27	HRW	62.8	68.8	0.43	81.5	7.4	54.9	2L
830088		303/76E4	HRW	63.2	68.5	0.43	81.2	7.9	55.5	3L
830089		303/77E18	HRW	64.4	70.2	0.43	83.1	7.8	53.6	2L
830090		303/78E2	HRW	64.8	68.3	0.43	81.3	8.8	54.4	4L
830091		303/79E41	HRW	64.0	68.5	0.46	79.7	8.1	54.6	3L
830092		303/80E36	HRW	64.8	69.3	0.44	81.7	8.0	54.7	4L
830093		303/81E50	HRW	64.0	70.3	0.40	84.9	8.0	53.4	2L
830094		303/82E30	HRW	63.6	69.0	0.50	78.4	7.5	55.7	3L
830095		303/83E46	HRW	64.4	70.2	0.45	82.0	7.7	56.1	5L
830096		303/84E8	HRW	62.8	69.7	0.45	81.7	7.4	55.8	3L
830097		303/85E5	HRW	64.8	71.2	0.41	85.6	8.8	54.1	2L
830098		303/86E59	HRW	63.2	69.3	0.46	80.6	9.1	57.5	8M
830099		303/87E53	HRW	64.8	72.0	0.40	86.9	7.5	54.1	1L
830100		303/88E9	HRW	64.4	71.8	0.40	86.6	7.9	54.4	2L
830101		303/89E44	HRW	64.8	71.7	0.42	85.2	8.7	54.7	3L
830102		303/90E52	HRW	65.6	70.6	0.37	86.8	9.4	57.2	2M
830103		303/91E34	HRW	63.2	71.5	0.40	86.3	7.4	53.8	5L
830104		303/92E57	HRW	63.2	68.9	0.51	77.5	7.6	57.1	6L
830105		303/93E51	HRW	64.4	68.7	0.45	80.6	8.5	54.4	2L
830106		303/94E38	HRW	65.2	69.3	0.43	82.1	8.8	58.0	6L
830107		303/95E43	HRW	64.0	71.1	0.40	85.8	7.2	53.8	1L
830108		303/96E13	HRW	62.0	70.3	0.39	85.3	7.1	55.3	2L
830109		303/97E21	HRW	64.0	71.3	0.40	86.2	7.4	53.0	1L
830110		303/98E56	HRW	62.2	68.1	0.42	81.4	8.3	53.7	2L
830111		303/99E40	HRW	64.4	68.3	0.43	81.1	7.8	53.5	3L
830112		303/100E54	HRW	63.6	69.0	0.43	82.2	7.3	54.9	3L
830113		303/101E6	HRW	64.4	69.1	0.40	83.9	7.8	55.1	2L
830114		303/102E60	HRW	64.0	69.1	0.49	78.8	9.0	57.7	8M
830115		303/103E55	HRW	62.4	68.8	0.47	79.8	7.6	54.4	4L
830116		303/104E45	HRW	64.0	71.7	0.38	87.5	7.4	55.0	2L
830117		303/105E12	HRW	64.4	72.5	0.39	87.7	7.7	53.8	3L





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DAVIS, CA

H.E. VOGT

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
830083		303/71E23	HRW	64.2	63.3	8.4	880	824	3	
830084		303/72E16	HRW	62.7	60.9	5.0	880	768	3	
830085		303/73E3	HRW	64.0	62.7	4.3	900	819	4	
830086		303/74E39	HRW	62.2	60.9	4.2	875	794	3	
830087		303/75E27	HRW	60.0	60.6	2.6	740	777	9	
830088		303/76E4	HRW	58.6	58.7	2.6	790	796	8	
830089		303/77E18	HRW	58.6	58.8	2.1	825	837	8	
830090		303/78E2	HRW	62.4	61.6	4.1	825	775	7	
830091		303/79E41	HRW	60.9	60.8	3.3	810	804	8	
830092		303/80E36	HRW	61.9	61.9	4.5	775	775	9	
830093		303/81E50	HRW	54.6	54.6	1.7	660	660	9	
830094		303/82E30	HRW	61.9	62.4	3.3	795	826	9	
830095		303/83E46	HRW	60.0	60.3	4.7	800	819	5	
830096		303/84E8	HRW	58.9	59.5	2.5	725	762	9	
830097		303/85E5	HRW	57.6	56.8	2.1	785	735	8	
830098		303/86E59	HRW	62.8	61.7	6.3	885	817	2	
830099		303/87E53	HRW	54.8	55.3	2.3	675	706	9	
830100		303/88E9	HRW	55.0	55.1	1.9	740	746	9	
830101		303/89E44	HRW	58.6	57.9	3.2	845	802	6	
830102		303/90E52	HRW	58.8	57.4	2.3	740	653	9	
830103		303/91E34	HRW	55.9	56.5	3.0	800	837	8	
830104		303/92E57	HRW	60.4	60.8	4.6	830	855	8	
830105		303/93E51	HRW	56.1	55.6	2.8	755	724	9	
830106		303/94E38	HRW	64.5	63.7	3.9	840	790	6	
830107		303/95E43	HRW	55.2	56.0	1.6	710	760	9	
830108		303/96E13	HRW	56.6	57.5	2.7	725	781	9	
830109		303/97E21	HRW	54.1	54.7	1.9	680	717	9	
830110		303/98E56	HRW	58.2	57.9	2.7	750	731	8	
830111		303/99E40	HRW	61.0	61.2	3.7	810	822	7	
830112		303/100E54	HRW	56.4	57.1	3.0	800	843	7	
830113		303/101E6	HRW	60.1	60.3	2.5	770	782	9	
830114		303/102E60	HRW	64.4	63.4	7.9	900	838	3	
830115		303/103E55	HRW	60.2	60.6	4.4	845	870	4	
830116		303/104E45	HRW	55.1	55.7	2.0	705	742	9	
830117		303/105E12	HRW	57.7	58.0	2.6	840	859	8	



## QUALITY VS ELECTROPHORETIC BANDS

DAVIS, CA

H.E. VOGT

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
830118		303/106E58	HRW	64.4	71.5	0.40	86.4	7.6	55.3	2L
830119		303/107E33	HRW	64.0	70.0	0.38	85.5	7.6	54.2	2L
830120		303/108E7	HRW	63.2	70.4	0.45	82.3	7.9	54.8	4L
830121		303/109E42	HRW	64.4	70.7	0.41	84.9	8.5	53.9	3L
830122		303/110E31	HRW	64.0	70.2	0.50	79.8	8.0	53.6	3L
830123		303/111E35	HRW	63.2	69.7	0.44	82.4	7.7	54.5	3L
830124		303/112E32	HRW	62.8	71.3	0.45	83.5	9.1	54.1	2M
830125		303/113E15	HRW	64.8	70.5	0.41	84.8	9.1	55.3	2M
830126		303/114E26	HRW	64.0	69.9	0.46	81.3	8.8	55.2	2M
830127		303/115E24	HRW	64.4	70.5	0.40	85.2	7.2	53.7	2L
830128		303/116E14	HRW	63.6	71.5	0.40	86.4	7.6	55.8	2L
830129		303/117E25	HRW	61.6	71.1	0.49	80.9	8.5	54.5	3M
830130		303/118E1	HRW	62.4	72.5	0.41	86.4	7.8	56.0	4L
830131		303/119E48	HRW	64.0	69.9	0.47	80.7	9.4	57.2	6M
830132		303/120E10	HRW	64.8	70.8	0.42	84.5	7.8	57.5	6L
830133		303/121E46	HRW	61.4	70.6	0.47	81.4	7.2	55.7	8L
830134		303/122E38	HRW	64.4	69.9	0.44	82.5	8.4	58.5	6L
830135		303/123E25	HRW	62.8	71.9	0.44	84.5	7.2	55.6	4L
830136		303/124E13	HRW	62.0	70.9	0.39	86.2	7.1	54.8	2L
830137		303/125E21	HRW	64.0	71.7	0.39	87.1	7.0	56.2	1L
830138		303/126E29	HRW	63.6	70.0	0.43	82.8	8.2	56.0	6L
830139		303/127E48	HRW	65.2	69.7	0.45	81.9	8.5	57.7	6M
830140		303/128E31	HRW	63.2	70.7	0.51	79.5	7.6	55.2	3L
830141		303/129E32	HRW	63.2	71.5	0.47	82.5	8.2	54.0	2M
830142		303/130E57	HRW	64.4	69.7	0.50	79.1	7.8	57.1	6L
830143		303/131E3	HRW	65.6	70.9	0.43	84.0	8.8	58.5	7M
830144		303/132E8	HRW	62.8	70.4	0.44	82.8	7.7	56.1	2L
830145		303/133E18	HRW	64.4	70.2	0.45	82.3	7.4	54.5	3L
830146		303/134E42	HRW	63.2	69.6	0.46	80.8	7.4	56.5	5L
830147		303/135E37	HRW	62.8	69.3	0.43	82.5	7.1	54.8	8L
830148		303/136E22	HRW	65.6	68.8	0.43	81.6	8.3	58.1	3M
830149		303/137E2	HRW	65.6	67.9	0.43	81.0	8.5	57.6	5L
830150		303/138E19	HRW	63.6	69.4	0.42	82.9	8.2	58.6	6L
830151		303/139E11	HRW	62.4	68.6	0.45	80.3	6.7	56.7	5L
830152		303/140E39	HRW	64.8	69.7	0.44	82.3	8.6	56.2	3L





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DAVIS, CA

H.E. VOGT

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
830118		303/106E58	HRW	57.1	57.5	2.0	750	775	9	
830119		303/107E33	HRW	56.5	56.9	2.3	730	755	9	
830120		303/108E7	HRW	58.4	58.5	3.6	815	821	6	
830121		303/109E42	HRW	58.1	57.6	3.0	855	824	2	
830122		303/110E31	HRW	59.3	59.3	2.5	880	880	3	
830123		303/111E35	HRW	58.4	58.7	3.9	785	804	8	
830124		303/112E32	HRW	56.4	55.3	1.5	850	782	8	
830125		303/113E15	HRW	59.6	58.5	1.9	845	777	6	
830126		303/114E26	HRW	61.2	60.4	2.4	840	790	6	
830127		303/115E24	HRW	54.6	55.4	2.2	725	775	9	
830128		303/116E14	HRW	55.6	56.0	1.5	755	780	9	
830129		303/117E25	HRW	56.2	55.7	2.7	860	829	8	
830130		303/118E1	HRW	59.5	59.7	4.1	880	892	8	
830131		303/119E48	HRW	63.8	62.4	4.3	860	773	3	
830132		303/120E10	HRW	60.5	60.7	4.1	830	842	3	
830133		303/121E46	HRW	60.1	60.9	4.9	805	855	8	
830134		303/122E38	HRW	65.1	64.7	4.5	820	795	7	
830135		303/123E25	HRW	55.5	56.3	3.8	780	830	8	
830136		303/124E13	HRW	56.5	55.5	2.0	700	638	9	
830137		303/125E21	HRW	55.9	56.9	1.7	670	732	9	
830138		303/126E29	HRW	60.4	60.2	5.2	785	773	9	
830139		303/127E48	HRW	63.9	63.4	4.5	800	769	7	
830140		303/128E31	HRW	58.5	58.9	2.8	830	855	4	
830141		303/129E32	HRW	56.4	56.2	1.9	770	758	8	
830142		303/130E57	HRW	62.6	62.8	4.6	820	832	7	
830143		303/131E3	HRW	64.5	63.7	4.7	820	770	7	
830144		303/132E8	HRW	61.0	61.3	2.9	710	729	9	
830145		303/133E18	HRW	59.1	59.7	3.5	765	802	9	
830146		303/134E42	HRW	58.6	59.2	4.1	700	737	9	
830147		303/135E37	HRW	60.1	61.0	5.2	715	771	9	
830148		303/136E22	HRW	63.1	62.8	2.8	770	751	9	
830149		303/137E2	HRW	63.8	63.3	4.0	740	709	9	
830150		303/138E19	HRW	64.5	64.3	4.1	740	728	9	
830151		303/139E11	HRW	62.6	63.9	4.8	680	761	9	
830152		303/140E39	HRW	62.0	61.4	3.2	815	778	6	



NURSCO 3

DAVIS, CA

H.E. VOGT

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
830153		303/141E54	HRW	64.0	69.8	0.42	83.1	7.8	55.4	2L
830154		303/142E36	HRW	64.8	70.5	0.47	81.3	7.5	57.2	3L
830155		303/143E30	HRW	63.6	69.8	0.51	78.9	7.5	57.2	2L
830156		303/144E35	HRW	63.6	70.2	0.47	81.1	7.1	56.4	4L
830157		303/145E50	HRW	63.6	70.7	0.43	84.0	7.7	53.7	2L
830158		303/166E41	HRW	64.8	69.3	0.48	79.6	7.8	56.6	3L
830159		303/147E45	HRW	63.6	71.5	0.39	86.7	7.2	54.2	2L
830160		303/148E1	HRW	63.2	71.8	0.40	86.6	7.6	56.4	6L
830161		303/149E9	HRW	64.4	72.1	0.40	86.9	7.4	55.6	2L
830162		303/150E40	HRW	64.8	69.5	0.45	81.4	7.9	57.7	3L
830163		303/151E34	HRW	64.0	72.0	0.44	84.5	7.7	54.0	3L
830164		303/152E28	HRW	62.8	70.4	0.41	84.7	7.5	56.2	3L
830165		303/153E33	HRW	64.4	70.5	0.38	86.0	7.6	55.4	2L
830166		303/154E17	HRW	64.0	71.6	0.39	86.6	7.3	55.6	2L
830167		303/155E47	HRW	64.8	70.1	0.47	80.9	9.3	57.3	8M
830168		303/156E44	HRW	64.8	72.1	0.41	86.1	8.3	55.5	3L
830169		303/157E58	HRW	64.0	71.6	0.41	85.8	7.4	56.1	1L
830170		303/158E53	HRW	64.4	71.6	0.39	87.0	7.0	55.0	2L
830171		303/159E20	HRW	66.0	71.6	0.42	85.1	8.2	55.3	6L
830172		303/160E12	HRW	64.0	72.8	0.38	88.4	7.5	56.5	2L
830173		303/161E23	HRW	64.8	69.7	0.44	82.3	8.4	56.1	8L
830174		303/162E5	HRW	65.2	71.4	0.40	85.9	7.7	56.3	2L
830175		303/163E14	HRW	63.2	71.3	0.39	86.3	7.2	54.6	1L
830176		303/164E7	HRW	64.0	72.1	0.43	85.4	8.1	56.6	3L
830177		303/165E43	HRW	64.8	72.3	0.39	87.6	7.4	54.9	2L
830178		303/166E27	HRW	62.4	69.1	0.44	81.4	6.9	56.0	2L
830179		303/167E60	HRW	64.8	69.9	0.44	82.4	8.7	57.1	8L
830180		303/168E4	HRW	62.8	69.9	0.44	82.4	7.7	54.6	3L
830181		303/169E6	HRW	64.4	68.9	0.41	82.8	7.6	54.3	2L
830182		303/170E10	HRW	64.8	70.6	0.42	84.4	7.6	56.9	4L
830183		303/171E16	HRW	66.0	70.9	0.40	85.6	8.8	56.1	5L
830184		303/172E49	HRW	64.4	71.4	0.40	86.3	7.4	54.6	1L
830185		303/173E52	HRW	65.2	70.7	0.38	86.6	8.4	55.5	2L
830186		303/174E56	HRW	63.6	69.4	0.43	82.2	8.2	55.1	1L
830187		303/175E15	HRW	65.6	70.9	0.39	86.0	7.2	54.8	1L





NURSCO 3

DAVIS, CA

H.E. VOGT

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
830153		303/141E54	HRW	58.9	59.1	2.8	735	747	9	
830154		303/142E36	HRW	62.9	63.4	3.8	735	766	9	
830155		303/143E30	HRW	63.4	63.9	3.3	800	831	9	
830156		303/144E35	HRW	59.2	60.1	3.7	765	821	9	
830157		303/145E50	HRW	55.1	55.4	2.7	760	779	6	
830158		303/166E41	HRW	60.6	60.8	3.0	825	837	6	
830159		303/147E45	HRW	56.1	56.9	2.2	705	755	9	
830160		303/148E1	HRW	59.7	60.1	4.4	875	900	5	
830161		303/149E9	HRW	56.2	56.8	2.2	745	782	9	
830162		303/150E40	HRW	61.8	61.9	3.2	820	826	8	
830163		303/151E34	HRW	58.4	58.7	4.1	840	859	8	
830164		303/152E28	HRW	59.4	59.9	3.5	850	881	6	
830165		303/153E33	HRW	56.7	57.1	2.3	785	810	9	
830166		303/154E17	HRW	56.1	56.8	2.2	720	763	9	
830167		303/155E47	HRW	65.8	64.5	5.5	880	799	5	
830168		303/156E44	HRW	59.5	59.2	2.1	900	881	2	
830169		303/157E58	HRW	56.7	57.3	1.9	745	782	9	
830170		303/158E53	HRW	55.2	56.2	2.2	650	712	9	
830171		303/159E20	HRW	60.7	60.5	4.5	900	888	2	
830172		303/160E12	HRW	55.7	56.2	1.8	805	836	8	
830173		303/161E23	HRW	62.7	62.3	6.8	880	855	2	
830174		303/162E5	HRW	57.2	57.5	2.0	785	804	9	
830175		303/163E14	HRW	55.0	55.8	2.0	750	800	9	
830176		303/164E7	HRW	59.9	59.8	2.8	890	884	2	
830177		303/165E43	HRW	55.5	56.1	1.8	750	787	9	
830178		303/166E27	HRW	60.1	61.2	2.9	790	858	9	
830179		303/167E60	HRW	64.5	63.8	7.8	915	872	2	
830180		303/168E4	HRW	59.5	59.8	3.3	850	869	8	
830181		303/169E6	HRW	58.6	59.0	2.8	715	740	9	
830182		303/170E10	HRW	60.7	61.1	4.2	860	885	2	
830183		303/171E16	HRW	62.1	61.3	3.8	855	805	2	
830184		303/172E49	HRW	55.2	55.8	2.0	700	737	9	
830185		303/173E52	HRW	60.1	59.7	2.5	775	750	9	
830186		303/174E56	HRW	57.0	56.8	2.0	785	773	9	
830187		303/175E15	HRW	58.7	59.5	1.4	730	780	9	



## QUALITY VS ELECTROPHORETIC BANDS

NURSCO 3

DAVIS, CA

H.E. VOGT

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
830188		303/176E26	HRW	64.0	69.4	0.43	82.5	9.0	56.5	2M
830189		303/177E24	HRW	64.8	71.5	0.46	83.2	8.2	56.1	2M
830190		303/178E55	HRW	62.4	68.9	0.54	75.9	7.3	55.6	5L
830191		303/179E51	HRW	63.6	69.3	0.44	81.5	7.9	54.9	2L
830192		303/180E59	HRW	63.2	69.2	0.49	79.0	8.4	55.8	8L





NURSCO 3

DAVIS, CA

H.E. VOGT

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
830188		303/176E26	HRW	60.7	59.7	2.0	840	778	8	
830189		303/177E24	HRW	60.5	60.3	3.3	790	778	9	
830190		303/178E55	HRW	58.6	59.3	4.1	805	848	9	
830191		303/179E51	HRW	58.5	58.6	2.5	775	781	9	
830192		303/180E59	HRW	63.4	63.0	6.6	900	875	2	



LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC
830193	PRIME HARD		HW	63.3	69.6	0.42	81.6	14.3	62.8
830194	STANDARD WHITE		SW	61.3	69.1	0.47	75.9	9.4	57.8
830195	SOFT		SW	63.3	71.3	0.41	81.7	9.5	57.3
830196	PNW WHITE WINTER		SW		74.3	0.39	89.8	9.8	57.5

LABNUM	VARIETY	IDNO	CLASS	MTYPE	CODI	CODIC	CAVOL	SCSOR	RMKS
830193	PRIME HARD		HW	4H	7.81	8.08	1155	65.0	
830194	STANDARD WHITE		SW	6M	8.00	7.82	1165	67.0	
830195	SOFT		SW	3M	8.59	8.42	1250	71.0	
830196	PNW WHITE WINTER		SW	2M	9.06	8.93	1370	80.0	

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS	BABSC
830193	PRIME HARD		HW	63.3	69.6	0.42	81.6	14.3	62.8	4H	69.4	66.1
830194	STANDARD WHITE		SW	61.3	69.1	0.47	75.9	9.4	57.8	6M	57.9	59.5
830195	SOFT		SW	63.3	71.3	0.41	81.7	9.5	57.3	3M	55.5	57.0
830196	PNW WHITE WINTER		SW		74.3	0.39	89.8	9.8	57.5	2M	54.5	55.7

LABNUM	VARIETY	IDNO	CLASS	MTIME	LVOL	LVOLC	BCRGR	CODI	CODIC	CAVOL	SCSOR	RMKS
830193	PRIME HARD		HW	3.1	1037	832	1	7.81	8.08	1155	65.0	
830194	STANDARD WHITE		SW	3.2	863	959	6	8.00	7.82	1165	67.0	
830195	SOFT		SW	2.7	865	955	6	8.59	8.42	1250	71.0	
830196	PNW WHITE WINTER		SW	1.6	910	982	7	9.06	8.93	1370	80.0	





NURSCO 5

CHENEY, WA

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC RMKS
						<u>1/</u>		<u>1/</u>				<u>4/</u>
830197	SAMPLE 1 (DAWS?)		SWW	60.0	74.3	0.46	86.5	9.8	54.7	2M	9.27	9.25
830198	SAMPLE 2 (BARBEE?)		SWW	60.0	74.3	0.46	86.5	9.9	55.6	2M	9.20	9.19

1/ Observed Values Corrected to 14% Moisture.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS:

Completed at the request of Nabisco Brands, Inc., Cheney, WA., to identify the variety of wheats. See Page 2 for Phenol test identification completed by Seed Laboratory, W.S.U..



WASHINGTON STATE UNIVERSITY  
SEED LABORATORY  
Pullman, Washington

Page 2

Lab No. 30032 Date Received: 7-21-83 Date of Test: 7-26-83  
Sample Information:

#1 (Nabisco Mills in Cheney)

Gordon Rubenthaler  
Wilson Hall - Room 7 4004

Kind of Seed			Per Cent
Wheat			
Phenol Test	Daws check	Dark Brown	40
	sample:	Fawn	60
	This sample:	Dark Brown	42
		Fawn	58

Remarks: According to the Phenol Reaction Chart, this sample is apparently Daws.

Analyst \_\_\_\_\_

The name of Washington State University must not be used for advertising purposes in connection with this report.

WASHINGTON STATE UNIVERSITY  
SEED LABORATORY  
Pullman, Washington

Lab No. 30033 Date Received: 7-21-83 Date of Test: 7-26-83  
Sample Information:

#2 (Nabisco Mills in Cheney)

Gordon Rubenthaler  
Wilson Hall 7 4004

Kind of Seed			Per Cent
Wheat			
Phenol Test	Barbee check	Dark Brown	55
	sample:	Fawn	45
	This sample:	Dark Brown	55
		Fawn	45

Remarks: According to the Phenol Reaction Chart, this sample is apparently Barbee.

Analyst \_\_\_\_\_

The name of Washington State University must not be used for advertising purposes in connection with this report.





NURSCO 6

WESTSIDE STA. UC, CA

L.F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
830199	ANZA (C1015284)	20	HRS	64.4	73.2	0.36	89.8	10.2	57.7	2M
830200	YECORA ROJO	112	HRS	64.4	72.0	0.36	88.9	12.4	59.4	6H
830201	PHOENIX	221	HWS	62.8	72.6	0.37	88.8	10.4	60.4	4M
830202	YOLO	353	HRS	64.0	73.5	0.36	90.4	10.9	59.9	3M
830203	PROBRAND 771	412	HRS	62.0	71.8	0.34	89.6	11.7	60.1	8M
830204	KLASIC	415	HWS	65.6	73.9	0.34	91.8	12.0	58.4	6H
830205	OSLO	436	HRS	63.6	72.0	0.33	90.3	12.5	60.0	4M
830206	GENERO F81	491	HRS	63.6	70.2	0.41	84.3	11.2	58.1	3M
830207	BC60-C113232/166//ANZA	497	HRS	66.0	72.6	0.31	91.7	11.2	58.8	3M
830208	WESTBRED 911	521	HRS	62.8	69.0	0.36	85.7	11.1	59.8	7M
830209	NK2437	6/536	HRS	64.8	71.5	0.36	88.3	11.9	59.6	8M
830210	NK3940	6/537	HRS	63.2	71.6	0.37	88.0	11.0	60.0	4M
830211	NK4236	6/538	HRS	63.7	73.7	0.37	89.8	10.4	61.5	4M
830212	TADORNA/INIA	544	HRS	63.6	72.0	0.35	89.5	10.5	56.7	2M
830213	TADORNA/INIA	6/545	HRS	63.6	67.9	0.31	87.2	10.5	57.4	5M
830214	TADORNA/INIA	546	HRS	63.2	71.1	0.34	88.8	10.8	55.5	4M
830215	NUDIF/INIA/ANZA	6/547	HRS	63.2	72.7	0.37	88.9	10.9	57.4	6M
830216	GLENNSON M81	548	HRS	65.6	72.7	0.42	86.3	11.5	59.3	3M
830217	URES T81	549	HRS	64.0	70.7	0.36	87.2	11.8	59.1	3M
830218	BC60/CALIDAD//ANZA	552	HRS	59.2	66.9	0.37	83.1	10.5	56.0	5M
830219	W5706	6/573	HRS	61.2	70.1	0.38	85.7	12.3	60.5	5H
830220	WS501	6/588	HRS	63.2	70.9	0.37	87.0	12.8	61.6	2H
830221	WS502	6/589	HRS	62.8	70.2	0.37	86.1	11.0	60.9	3M
830222	WS503	6/590	HRS	63.6	71.5	0.35	88.7	13.2	61.6	3H
830223	WPB7023	592	HRS	59.2	67.5	0.41	81.4	11.2	62.5	6H
830224	WRP 9-15	593	HRS	62.4	69.0	0.44	81.6	10.5	60.5	8M
830225	ERA/PITIC 62	594	HRS	64.4	73.8	0.35	91.4	10.1	60.1	2M
830226	ANZA/4/ERA/TOB/LOVI 11/3/MNMMN6916	595	HRS	62.8	72.1	0.36	88.7	10.0	59.0	3M
830227	SGW010C	598	HWS	64.8	71.2	0.37	87.3	12.2	58.6	6M
830228	NK2940	599	HRS	64.8	69.2	0.37	85.1	12.0	58.8	7M

1/ Observed Values Corrected to 14% Moisture Basis. 5/ Particularly Promising Overall Quality Characteristics.  
3/ Absorption at 14% Moisture Corrected to 11% Protein. 6/ Promising Overall Quality Characteristics.  
4/ Observed Values Corrected to 11% Protein.



NURSCO 6

L.F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
830199	ANZA (C1015284)	20	HRS	59.1	59.9	2.2	845	895	6	Low LVOL, P-BCRGR
830200	YECORA ROJO	112	HRS	64.0	62.6	4.5	1005	918	2	
830201	PHOENIX	221	HW	62.0	62.6	2.8	975	1012	2	
830202	YOLO	353	HRS	61.0	61.1	2.5	990	996	5	P-BCRGR
830203	PROBRAND 771	412	HRS	63.0	62.3	5.1	1030	987	2	
830204	KLASIC	415	HWS	61.6	60.6	4.0	1045	983	2	
830205	OSLO	436	HRS	63.7	62.2	2.6	995	902	2	
830206	GENERO F81	491	HRS	60.5	60.3	2.3	850	838	8	Low LVOL, P-BCRGR
830207	BC60-C113232/166//ANZA	497	HRS	61.2	61.0	2.5	880	868	9	Low LVOL, P-BCRGR
830208	WESTBRED 911	521	HRS	63.1	63.0	4.3	920	914	4	Q-LVOL, P-BCRGR
830209	NK2437	536	HRS	62.7	61.8	3.8	985	929	2	CRUMB GRAIN CREAMY
830210	NK3940	537	HRS	62.2	62.2	3.0	950	950	2	
830211	NK4236	538	HRS	63.1	63.7	3.0	930	967	3	
830212	TADORNA/INIA	544	HRS	57.4	57.9	2.0	800	831	8	L-LVOL, P-MTIM/BCRGR
830213	TADORNA/INIA	545	HRS	58.1	58.6	3.4	965	996	2	Q-FYELD
830214	TADORNA/INIA	546	HRS	57.5	57.7	2.8	845	857	8	L-LVOL, P-BCRGR
830215	NUDIF/INIA/ANZA	547	HRS	59.0	59.1	2.9	915	921	3	
830216	GLENNSON M81	548	HRS	59.5	59.0	3.5	930	899	3	Q-CRUMB GRAINCREAMY
830217	URES T81	549	HRS	63.1	62.3	2.4	870	820	8	P-LVOL&BCRGR
830218	BC60/CALIDAD//ANZA	552	HRS	57.7	58.2	3.0	940	971	5	P-FYELD&BCRGR
830219	W5706	573	HRS	64.0	62.7	4.6	1025	944	2	
830220	WS501	588	HRS	65.6	63.8	2.9	1075	963	2	
830221	WS502	589	HRS	62.1	62.1	2.4	1000	1000	4	Q-BCRGR
830222	WS503	590	HRS	66.0	63.8	2.5	1065	929	2	Excellent Protein
830223	WPB7023	592	HRS	65.4	65.2	4.5	1030	1018	4	P-FYELD, Q-BCRGR
830224	WRP 9-15	593	HRS	63.7	64.2	4.8	900	931	4	Q-FYELD&BCRGR
830225	ERA/PITIC 62	594	HRS	59.9	60.8	1.8	840	896	8	P-LVOL&BCRGR
830226	ANZA/4/ERA/T0B/LOV1 11/3/MNMMN6916	595	HRS	59.2	60.2	2.6	845	907	8	P-LVOL&BCRGR
830227	SGW010C	598	HWS	62.0	60.8	3.2	955	881	4	P-LVOL, Q-BCRGR
830228	NK2940	599	HRS	63.0	62.0	4.1	955	893	2	Q-FYELD&LVOL

COMMENTS: Three of the group are hard white wheats (Phoenix, Klasic, and SGW010C), others were all hard red in texture (spring or winter?). See the footnotes in IDNO column for those with overall promising quality properties and Remarks column for deficiencies of the remainder.

L = Low, Q = Questionable, P = Poor



NURSCO 7

SUTTER CO., CA

L.F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
830229	ANZA (C1015284)	20	HRS	62.9	70.6	0.44	83.0	7.2	55.1	1L
830230	PHOENIX	221	HWS	61.2	69.5	0.45	81.2	7.8	54.6	2L
830231	PROBRAND 771	412	HRS	62.5	69.4	0.36	86.0	9.9	54.1	8M
830232	KLASIC	415	HWS	64.7	71.8	0.38	87.4	9.0	57.8	8M
830233	OSLO	6/436	HRS	63.6	71.5	0.35	88.7	9.8	54.9	6M
830234	GENERO F81	491	HRS	62.9	67.9	0.47	78.7	7.8	56.9	3L
830235	BC60-C113232/166//ANZA	497	HRS	64.3	70.3	0.37	86.4	8.1	54.4	5L
830236	WESTBRED 911	521	HRS	62.8	66.8	0.37	83.0	8.3	56.4	6L
830237	NK2437	536	HRS	63.9	70.0	0.39	85.2	9.5	55.3	7M
830238	NK3940	6/537	HRS	64.4	71.1	0.39	86.4	9.1	55.7	6L
830239	NK4236	6/538	HRS	57.9	68.8	0.44	81.1	10.6	56.9	6M
830240	TADORNA/INIA	544	HRS	62.8	69.8	0.35	86.7	6.9	55.0	1L
830241	TADORNA/INIA	545	HRS	62.7	67.9	0.35	85.1	6.9	52.5	8L
830242	TADORNA/INIA	546	HRS	62.2	70.3	0.36	86.8	6.4	54.8	1L
830243	NUDIF/INIA/ANZA	547	HRS	59.1	70.5	0.39	85.4	7.0	53.8	2L
830244	GLENNSON M81	548	HRS	63.6	70.1	0.47	81.1	8.3	54.4	3L
830245	URES T81	549	HRS	63.5	66.7	0.47	77.7	8.0	55.7	4L
830246	W5706	573	HRS	63.3	70.8	0.49	80.8	8.3	56.7	6L
830247	WS501	588	HRS	63.6	67.8	0.40	82.1	10.3	56.2	4M
830248	WS502	589	HRS	62.9	67.7	0.40	82.1	8.0	55.2	3L
830249	WS503	6/590	HRS	62.5	71.6	0.43	84.5	9.3	56.0	6M
830250	WPB7023	592	HRS	61.5	69.2	0.57	75.1	8.1	56.7	4L
830251	WRP 9-15	593	HRS	62.1	67.8	0.48	78.1	7.9	57.6	5L
830252	ERA/PITIC 62	594	HRS	62.7	69.8	0.41	83.9	7.3	54.9	1L
830253	ANZA/4/ERA/TOB/LOV1 11/3/MN6916	595	HRS	61.8	67.7	0.42	81.0	7.8	54.0	1L
830254	SGW010C	6/598	HWS	63.5	70.4	0.42	83.8	9.6	54.9	7M
830255	NK2940	599	HRS	63.3	66.9	0.42	80.2	9.2	56.5	7M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 7

SUTTER CO., CA

L.F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
830229	ANZA (C1015284)	20	HRS	56.5	57.3	2.2	600	650	8	P-LVOL & BCRGR
830230	PHOENIX	221	HW	57.1	57.3	2.3	705	717	7	P-BCRGR
830231	PROBRAND 771	412	HRS	59.2	57.3	3.6	835	717	4	Q-BCRGR
830232	KLASIC	415	HWS	62.0	61.0	5.2	785	723	3	Q-BCRGR
830233	OSLO	436	HRS	58.9	57.1	3.0	910	798	2	
830234	GENERO F81	491	HRS	59.9	60.1	3.6	580	592	9	P-LVOL & BCRGR
830235	BC60-C113232/166//ANZA	497	HRS	57.7	57.6	3.4	600	594	9	P-LVOL & BCRGR
830236	WESTBRED 911	521	HRS	59.9	59.6	4.0	660	641	8	P-FYELD & BCRGR
830237	NK2437	536	HRS	60.0	58.5	3.9	770	677	5	P-BCRGR
830238	NK3940	537	HRS	59.0	57.9	2.6	850	782	3	
830239	NK4236	538	HRS	61.7	59.1	2.7	915	754	2	Q-FYELD
830240	TADORNA/INIA	544	HRS	56.1	57.2	2.2	555	623	9	VP-LVOL & BCRGR
830241	TADORNA/INIA	545	HRS	53.6	54.7	2.7	650	718	9	VP-LVOL & BCRGR
830242	TADORNA/INIA	546	HRS	55.4	57.0	3.0	575	674	9	VP-LVOL & BCRGR
830243	NUDIF/INIA/ANZA	547	HRS	55.0	56.0	2.8	595	657	9	VP-LVOL & BCRGR
830244	GLENNSON M81	548	HRS	56.9	56.6	3.3	790	771	8	VP-LVOL & BCRGR
830245	URES T81	549	HRS	57.9	57.9	3.5	575	575	9	VP-LVOL & BCRGR
830246	W5706	573	HRS	59.2	58.9	3.8	770	751	7	P-LVOL & BCRGR
830247	WS501	588	HRS	62.7	60.4	3.1	848	705	3	Q-FYELD
830248	WS502	589	HRS	57.4	57.4	2.6	755	755	8	P-FLYED & BCRGR
830249	WS503	590	HRS	59.5	58.2	3.0	830	749	2	
830250	WPB7023	592	HRS	60.5	60.4	4.7	715	709	8	P-MSCOR & BCRGR
830251	WRP 9-15	593	HRS	59.7	59.8	4.6	730	736	8	P-MSCOR & BCRGR
830252	ERA/PITIC 62	594	HRS	56.4	57.1	2.2	565	608	9	P-LVOL & BCRGR
830253	ANZA/4/ERA/TOB/LOV1 11/3/MN6916	595	HRS	56.0	56.2	2.2	590	602	9	P-LVOL & BCRGR
830254	SGW010C	598	HWS	58.7	57.1	3.3	820	721	2	
830255	NK2940	599	HRS	60.9	59.7	3.9	740	666	8	P-FYELD & BCRGR

COMMENTS: Protein content was low for good meaningful baking data, however most of the selections in this group are so poor that the protein could not have been a factor. Those that have good overall quality are noted with footnotes. See the REMARKS column for deficiencies.

VP = Very Poor; P = Poor; Q = Questionable



NURSCO 8

BUTTE CO., CA

L.F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
830256	ANZA (C1015284)	20	HRS	63.5	70.6	0.41	84.8	8.2	58.7	2L
830257	YECORA ROJO	112	HRS	63.3	70.7	0.39	85.7	10.5	60.4	4M
830258	PHOENIX	221	HWS	62.3	69.8	0.39	84.7	8.2	58.2	3L
830259	YOLO	353	HRS	63.1	71.9	0.39	87.3	8.2	56.7	3L
830260	PROBRAND 771	<u>5/412</u>	HRS	62.0	70.1	0.44	82.8	10.5	58.1	6M
830261	KLASIC	415	HWS	63.6	71.1	0.38	86.8	10.1	58.0	8M
830262	OSLO	436	HRS	63.0	70.4	0.42	84.1	10.8	59.5	6M
830263	GENERO F81	491	HRS	62.6	67.7	0.42	81.3	9.2	57.0	3L
830264	BC60-C113232/166//ANZA	497	HRS	64.2	67.7	0.36	84.3	9.5	57.9	3M
830265	WESTBRED 911	521	HRS	62.3	67.0	0.41	80.8	9.0	58.2	7M
830266	NK2437	536	HRS	62.5	68.9	0.40	83.5	11.2	58.0	4M
830267	NK3940	537	HRS	63.5	70.3	0.39	85.4	10.6	58.3	4M
830268	NK4236	<u>5/538</u>	HRS	61.0	72.3	0.39	87.4	10.5	60.2	4M
830269	TADORNA/INIA	544	HRS	63.2	69.8	0.36	86.2	8.5	57.3	2L
830270	TADORNA/INIA	545	SRS	62.9	67.4	0.32	87.6	8.7	56.0	5L
830271	TADORNA/INIA	546	HRS	63.3	70.4	0.36	87.2	8.3	56.2	3L
830272	NUDIF/INIA/ANZA	547	HRS	60.8	71.4	0.40	86.3	8.6	56.8	2L
830273	GLENNSON M81	548	HRS	63.3	68.5	0.47	79.5	10.1	56.7	3M
830274	W5706	573	HRS	63.7	70.0	0.39	85.0	10.1	60.3	4H
830275	WS501	588	HRS	62.1	68.4	0.39	83.3	11.9	58.0	2H
830276	WS502	589	HRS	61.5	67.7	0.40	82.1	9.6	57.9	3M
830277	WS503	<u>6/590</u>	HRS	62.1	71.7	0.41	85.7	10.5	58.8	3H
830278	WPB7023	592	HRS	61.7	68.8	0.41	82.6	9.1	58.7	7M
830279	WRP 9-15	593	HRS	62.5	69.6	0.44	82.3	9.0	59.0	7M
830280	ANZA/4/ERA/TOB/LOVI 11/3/MN6916	595	HRS	63.0	69.9	0.40	84.4	8.5	56.6	2L
830281	SGW 010C	<u>6/598</u>	HWS	63.7	70.3	0.41	84.6	10.1	56.9	7M
830282	NK2940	599	HRS	62.0	67.0	0.41	80.7	11.0	58.3	4M

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 10% Protein.4/ Observed Values Corrected to 10% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.





NURSCO 8

BUTTE CO., CA

L.F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
830256	ANZA (C1015284)	20	HRS	59.1	60.9	1.9	640	752	9	P-LVOL & BCRGR
830257	YECORA ROJO	112	HRS	63.1	62.6	3.0	870	839	4	Q-BCRGR
830258	PHOENIX	221	HW	58.6	60.4	2.6	740	852	8	P-BCRGR
830259	YOLO	353	HRS	57.1	58.9	2.1	855	967	6	P-BCRGR
830260	PROBRAND 771	412	HRS	61.8	61.3	3.1	950	919	2	
830261	KLASIC	415	HWS	61.3	61.2	5.6	875	869	6	P-BCRGR
830262	OSLO	436	HRS	63.5	62.7	2.9	915	865	4	Q-BCRGR
830263	GENERO F81	491	HRS	60.4	61.2	2.8	675	725	9	P-FYELD & BCRGR
830264	BC60-C113232/166//ANZA	497	HRS	61.1	61.6	2.9	770	801	8	P-FYELD & BCRGR
830265	WESTBRED 911	521	HRS	62.4	63.4	3.9	760	822	4	P-FYELD & BCRGR
830266	NK2437	536	HRS	63.4	62.2	2.9	888	814	4	Q-BCRGR
830267	NK3940	537	HRS	62.1	61.5	3.0	905	868	4	Q-BCRGR
830268	NK4236	538	HRS	63.9	63.4	3.8	955	924	2	
830269	TADORNA/INIA	544	HRS	59.0	60.5	2.1	650	743	9	VP-LVOL & BCRGR
830270	TADORNA/INIA	545	SRS	55.9	57.2	2.5	755	833	9	VP-LVOL & BCRGR
830271	TADORNA/INIA	546	HRS	57.7	59.4	2.5	675	780	9	VP-LVOL & BCRGR
830272	NUDIF/INIA/ANZA	547	HRS	58.6	60.0	3.1	730	817	9	VP-LVOL & BCRGR
830273	GLENNSON M81	548	HRS	60.0	59.9	2.7	840	834	8	P-FYELD & BCRGR
830274	W5706	573	HRS	65.6	65.5	3.4	878	872	4	Q-BCRGR
830275	WS501	588	HRS	65.1	63.2	2.3	925	807	2	Q-FYELD
830276	WS502	589	HRS	59.2	59.6	1.9	845	870	8	P-FYELD & BCRGR
830277	WS503	590	HRS	64.0	63.5	3.4	913	882	2	
830278	WPB7023	592	HRS	62.5	63.4	3.5	810	866	6	P-FYELD & BCRGR
830279	WRP 9-15	593	HRS	63.2	64.2	4.3	805	867	8	P-BCRGR
830280	ANZA/4/ERA/TOB/LOV1 11/3/MN6916	595	HRS	58.3	59.8	2.2	620	713	9	VP-LVOL & BCRGR
830281	SGW 010C	598	HWS	61.2	61.1	4.0	855	849	3	
830282	NK2940	599	HRS	62.5	61.5	3.6	850	788	3	P-FYELD

COMMENTS: Klasic did not perform as expected in baking. Most of these selections are unsatisfactory in overall quality. See REMARKS for deficiencies.

VP = Very Poor; P = Poor; Q = Questionable



NURSCO 9

DAVIS, CA

L.F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
830283	ANZA (C1015284)	20	HRS	63.9	73.7	0.39	89.1	9.4	57.5	2M
830284	YECORA ROJO	112	HRS	62.5	71.8	0.40	86.5	10.9	59.7	7H
830285	PHOENIX	221	HWW	63.2	72.6	0.40	87.3	9.5	57.2	3M
830286	YOLO	353	HRS	63.0	73.5	0.40	88.4	9.4	58.3	3M
830287	PROBRAND 771	412	HRS	59.5	71.0	0.36	87.6	10.5	57.2	8M
830288	KLASIC	415	HWS	63.6	72.9	0.37	89.0	10.1	57.7	7H
830289	OSLO	436	HRS	61.0	72.6	0.37	89.1	12.1	59.6	4H
830290	GENERO F81	491	HRS	63.3	69.2	0.40	83.7	9.1	58.1	5M
830291	BC60-C113232/166//ANZA	497	HRS	64.5	73.2	0.35	90.6	10.1	57.0	2M
830292	WESTBRED 911	521	HRS	62.8	69.5	0.43	82.7	9.8	59.8	7M
830293	NK2437	6/ 536	HRS	62.9	71.3	0.39	86.4	10.3	58.4	8M
830294	NK3940	6/ 537	HRS	62.3	71.6	0.40	86.3	11.1	59.4	4H
830295	NK4236	6/ 538	HRS	57.5	71.0	0.43	84.1	10.4	62.2	5H
830296	TADORNA/INIA	544	HRS	61.5	71.1	0.40	85.8	9.8	56.7	5M
830297	TADORNA/INIA	6/ 545	SRS	61.7	71.1	0.39	87.1	9.5	53.1	7M
830298	TADORNA/INIA	546	HRS	61.6	71.4	0.40	86.0	9.8	56.6	4M
830299	NÜDIF/INIA/ANZA	547	HRS	62.5	73.1	0.38	89.1	10.1	56.9	4M
830300	GLENNSON M81	548	HRS	63.7	70.5	0.46	82.1	9.9	58.5	6M
830301	URES T81	549	HRS	63.3	68.8	0.43	82.0	10.0	57.0	4M
830302	BC60/CALIDAD//ANZA	552	HRS	55.8	64.6	0.39	79.7	10.3	54.5	3M
830303	W5706	6/ 573	HRS	62.8	71.7	0.39	87.0	10.3	60.1	6M
830304	WS501	6/ 588	HRS	63.3	72.2	0.39	87.5	12.1	63.3	5H
830305	WS502	5/ 589	HRS	59.9	71.4	0.42	85.0	10.1	58.7	4M
830306	WS503	5/ 590	HRS	63.4	73.5	0.37	89.8	10.8	61.5	3H
830307	WPB7023	592	HRS	55.0	65.8	0.47	76.6	10.9	59.8	5H
830308	WRP 9-15	593	HRS	59.9	67.8	0.45	79.6	9.7	60.2	8M
830309	ERA/PITIC 62	594	HRS	63.8	72.7	0.37	88.8	9.2	56.8	3M
830310	ANZA/4/ERA/TOB/LOVI 11/3/MN6916	595	HRS	62.8	71.0	0.39	86.3	9.3	58.1	3M
830311	SGW 010C	598	HWS	61.9	68.5	0.42	81.8	10.8	56.7	6M
830312	NK2940	599	HRS	61.9	68.7	0.42	82.1	9.3	60.5	8M

1/ Observed Values Corrected to 14% Moisture Basis. 5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 10% Protein. 6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 10% Protein.



NURSCO 9

DAVIS, CA

L.F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
830283	ANZA (C1015284)	20	HRS	58.1	58.7	1.6	885	922	6	
830284	YECORA ROJO	112	HRS	64.3	63.4	7.3	975	919	2	
830285	PHOENIX	221	HWS	58.9	59.4	2.4	893	924	5	Q-BCRGR
830286	YOLO	353	HRS	57.9	58.5	2.1	955	992	6	Q-BCRGR
830287	PROBRAND 771	412	HRS	60.4	59.9	5.5	1035	1004	2	
830288	KLASIC	415	HWS	61.0	60.9	7.5	1025	1019	2	
830289	OSLO	436	HRS	62.9	60.8	4.2	1100	970	2	
830290	GENERO F81	491	HRS	60.4	61.3	3.6	785	841	9	P-FYELD,LVOL,BCRGR
830291	BC60-C113232/166//ANZA	497	HRS	58.3	58.2	1.9	885	879	8	P-MTIME,LVOL,BCRGR
830292	WESTBRED 911	521	HRS	67.8	68.0	4.3	868	880	4	P-FYELD,MTIME,BCRGR
830293	NK2437	536	HRS	61.9	61.6	6.4	935	916	2	
830294	NK3940	537	HRS	61.7	60.6	3.2	980	912	2	
830295	NK4236	538	HRS	65.8	65.4	5.4	1035	1010	2	
830296	TADORNA/INIA	544	HRS	58.7	58.9	4.0	900	912	6	P-BCRGR
830297	TADORNA/INIA	545	SRS	54.8	55.3	4.9	940	970	2	(soft texture)
830298	TADORNA/INIA	546	HRS	57.6	57.8	2.6	925	937	4	Q-BCRGR
830299	NUDIF/INIA/ANZA	547	HRS	59.2	59.1	3.5	910	904	6	P-BCRGR
830300	GLENNSON M81	548	HRS	61.6	61.7	3.7	875	881	4	Q-FYELD&BCRGR
830301	URES T81	549	HRS	61.2	61.2	3.3	770	770	8	P-FYELD,LVOL&BCRGR
830302	BC60/CALIDAD//ANZA	552	HRS	57.0	56.7	2.4	925	906	2	VP-MILLING(FYELD)
830303	W5706	573	HRS	62.6	62.3	4.4	945	926	2	
830304	WS501	588	HRS	68.6	66.5	4.8	1080	950	2	
830305	WS502	589	HRS	61.0	60.9	2.5	1030	1024	2	
830306	WS503	590	HRS	64.5	63.7	2.7	1035	985	2	
830307	WPB7023	592	HRS	65.9	65.0	5.3	990	934	2	VP-MILLING(FYELD)
830308	WRP 9-15	593	HRS	64.1	64.4	6.1	955	974	2	P-MILLING(FYELD)
830309	ERA/PITIC 62	594	HRS	57.2	58.0	1.8	850	900	6	P-MTIME&BCRGR
830310	ANZA/4/ERA/TOB/LOV1 11/3/MN6916	595	HRS	59.6	60.3	2.1	875	918	6	P-MTIME&BCRGR
830311	SGW 010C	598	HWS	59.7	58.9	3.3	925	875	2	P-FYELD
830312	NK2940	599	HRS	64.0	64.7	5.0	1005	1048	2	P-FYELD

COMMENTS: The selections with acceptable overall milling an baking quality are noted with footnotes in the table. See "REMARKS" for the specific quality deficiencies of the others.

P = Poor; VP = Very Poor; Q = Questionable







United States  
Department of  
Agriculture

Agricultural  
Research  
Service

Pacific West Area

Western Wheat Quality Lab  
Wilson 7, WSU  
Pullman, WA 99164-4004  
(509) 335-4062

December 12, 1990

SUBJECT: 1989 Crop Report

FROM: Craig F. Morris, Director, WWQL

CFM

Please find enclosed the 1989 crop quality data from the Western Region cooperating breeding programs. For economy, the introductory section has been omitted; it is the same as in the 1988 Crop Report. If you need additional information please let me know.



NURSCO 10

SAN JOAQUIN DELTA CA

L.F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/ 3/		1/ 3/		
830313	ANZA (C1015284)	20	HRS	64.4	72.7	0.39	88.0	10.7	57.2	1H
830314	YECORA ROJO	112	HRS	63.5	72.5	0.38	88.3	13.0	61.7	4H
830315	PHOENIX	221	HW	62.4	71.7	0.39	86.6	10.3	58.5	2M
830316	YOLO	353	HRS	61.2	71.9	0.40	86.3	10.9	59.4	2H
830317	PROBRAND 771	412	HRS	62.1	71.5	0.33	89.8	13.1	61.7	4H
830318	KLASIC	415	HWS	63.9	72.5	0.35	90.0	12.8	60.8	5H
830319	OSLO	436	HRS	63.0	72.1	0.34	89.7	13.3	64.4	3H
830320	GENERO F81	491	HRS	61.8	69.6	0.37	85.5	12.7	56.5	3H
830321	BC60-C113232/166//ANZA	497	HRS	64.7	70.9	0.35	88.0	12.4	59.0	2H
830322	WESTBRED 911	521	HRS	62.3	68.8	0.38	84.1	11.3	62.0	4H
830323	NK2437	5/536	HRS	63.5	71.9	0.36	88.4	12.6	63.1	4H
830324	NK3940	5/537	HRS	63.8	72.7	0.39	88.1	12.9	62.8	3H
830325	NK4236	6/538	HRS	57.8	69.2	0.42	82.5	13.2	66.0	4H
830326	TADORNA/INIA	544	HRS	63.8	71.8	0.36	88.8	11.8	57.5	1H
830327	TADORNA/INIA	6/545	SRS	64.4	72.0	0.36	89.6	11.4	54.7	2H
830328	TADORNA/INIA	546	HRS	64.3	71.5	0.35	88.6	12.0	55.8	1H
830329	NUDIF/INIA/ANZA	547	HRS	62.5	72.1	0.38	88.0	12.5	57.8	1H
830330	GLENNSON M81	548	HRS	62.7	69.8	0.42	83.2	12.4	60.5	3H
830331	URES T81	549	HRS	62.5	70.1	0.40	84.8	12.6	60.2	3H
830332	BC60/CALIDAD//ANZA	552	SRS	57.0	63.1	0.39	77.7	12.5	55.7	2H
830333	W5706	5/573	HRS	63.4	72.5	0.40	87.4	12.1	63.3	4H
830334	W5501	5/588	HRS	63.1	71.5	0.38	87.2	13.4	64.3	2H
830335	W5502	589	HRS	63.2	71.5	0.37	87.9	11.9	59.3	1H
830336	W5503	6/590	HRS	62.7	73.1	0.39	88.5	13.3	64.8	2H
830337	WPB7023	6/592	HRS	60.6	70.1	0.40	84.6	12.1	63.5	5H
830338	WRP 9-15	6/593	HRS	61.8	70.3	0.42	84.0	11.9	62.4	5H
830339	ERA/PITIC 62	594	HRS	63.9	72.5	0.40	87.4	10.6	59.1	1H
830340	ANZA/4/ERA/TOB/LOVI 11/3/MN6916	595	HRS	61.2	69.1	0.40	83.6	10.8	58.6	2H
830341	SGW 010C	6/598	HWS	63.4	71.0	0.41	85.1	12.5	62.3	4H
830342	NK2940	6/599	HRS	62.8	70.4	0.41	84.7	13.1	62.9	5H

1/ Observed Values Corrected to 14% Moisture Basis. 6/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 12% Protein. 5/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 12% Protein.



USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

## DELTA REGIONAL WHEAT

NURSCO 10

SAN JOAQUIN DELTA CA

L.F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
830313	ANZA (C1015284)	20	HRS	57.1	58.4	1.2	875	956	8	
830314	YECORA ROJO	112	HRS	66.9	65.9	4.3	1075	1013	2	
830315	PHOENIX	221	HW	58.0	59.7	1.5	910	1015	6	
830316	YOLO	353	HRS	59.0	60.1	1.6	1005	1073	2	
830317	PROBRAND 771	412	HRS	66.0	64.9	3.3	1120	1052	2	
830318	KLASIC	415	HWS	64.8	64.0	4.3	1110	1060	2	
830319	OSLO	436	HRS	66.4	65.1	2.3	1135	1054	2	
830320	GENERO F81	491	HRS	61.4	60.7	3.2	915	872	3	P-FYELD
830321	BC60-C113232/166//ANZA	497	HRS	61.1	60.7	1.8	930	905	4	P-MTIME&BCRGR
830322	WESTBRED 911	521	HRS	65.5	66.2	3.3	950	993	2	P-FYELD
830323	NK2437	536	HRS	67.9	67.3	3.4	1070	1033	2	
830324	NK3940	537	HRS	65.9	65.0	2.6	1105	1049	2	
830325	NK4236	538	HRS	70.4	69.2	3.3	1105	1031	2	Q-FYELD
830326	TADORNA/INIA	544	HRS	58.5	58.7	1.0	855	867	9	P-MTIME, LVOL&BCRGR
830327	TADORNA/INIA	545	SRS	56.3	56.9	1.9	970	1006	3	Q-TEXTURE(soft)
830328	TADORNA/INIA	546	HRS	58.0	58.0	1.2	835	835	9	P-MTIME, LVOL&BCRGR
830329	NUDIF/INIA/ANZA	547	HRS	60.5	60.0	1.6	975	944	8	P-MTIME, BCRGR
830330	GLENNSON M81	548	HRS	64.1	63.7	3.0	1020	995	3	Q-FYELD&BCRGR
830331	URES T81	549	HRS	64.0	63.4	2.4	915	878	4	P-MTIME, LVOL&BCRGR
830332	BC60/CALIDAD//ANZA	552	SRS	59.4	58.9	2.2	1015	984	2	VP-MILLING(FYELD)
830333	W5706	573	HRS	67.6	67.5	3.5	1025	1019	2	
830334	WS501	588	HRS	67.9	66.5	2.3	1165	1078	2	
830335	WS502	589	HRS	60.4	60.5	1.1	960	966	4	P-MTIME, Q-BCRGR
830336	WS503	590	HRS	67.3	66.0	2.1	1135	1054	2	
830337	WPB7023	592	HRS	67.8	67.7	4.0	1090	1084	2	
830338	WRP 9-15	593	HRS	66.5	66.6	3.7	1060	1066	2	
830339	ERA/PITIC 62	594	HRS	59.9	61.3	1.8	875	962	6	P-MTIME&BCRGR
830340	ANZA/4/ERA/TOB/LOVI 11/3/MN6916	595	HRS	59.6	60.8	1.8	875	949	6	P-MTIME&BCRGR
830341	SGW 010C	598	HWS	67.0	66.5	2.7	1010	979	2	
830342	NK2940	599	HRS	69.2	68.1	4.3	1110	1042	1	

COMMENTS: The selections with acceptable overall milling and baking quality are noted with footnotes in the table. See "REMARKS" for the specific quality deficiencies of the others.

VP = Very Poor; P = Poor; Q = Questionable





NURSCO 11

WESTSIDE STA. UC, CA

S. PETTYGROVE

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/ 3/		1/ 3/		
830343	YECORA ROJO	1(11, T0)	HRS	65.0	70.9	0.44	83.6	8.5	59.7	8L
830344	YECORA ROJO	6/2(11, T1)	HRS	64.5	71.3	0.41	85.3	9.8	60.0	8M
830345	YECORA ROJO	6/3(11, T2)	HRS	63.4	71.0	0.38	86.9	12.5	58.2	5H
830346	YOLO	4(11, T0)	HRS	62.4	71.9	0.36	88.4	6.8	56.5	2L
830347	YOLO	5(11, T1)	HRS	63.6	73.7	0.36	90.4	8.3	54.7	3L
830348	YOLO	6(11, T2)	HRS	63.8	73.7	0.35	90.8	10.2	56.2	3M
830349	PROBRAND 771	7(11, T0)	HRS	62.9	70.8	0.36	87.4	8.0	57.2	8L
830350	PROBRAND 771	8(11, T1)	HRS	60.6	70.1	0.37	86.5	9.6	56.4	8M
830351	PROBRAND 771	9(11, T2)	HRS	61.9	73.0	0.33	91.6	11.2	55.8	7M
830352	YECORA ROJO	10(12, T0)	HRS	64.8	69.7	0.44	82.4	8.8	59.9	8L
830353	YECORA ROJO	6/11(12, T1)	HRS	64.7	70.0	0.40	84.6	9.9	58.6	8L
830354	YECORA ROJO	6/12(12, T2)	HRS	63.8	69.6	0.37	86.0	12.0	59.1	8M
830355	YOLO	13(12, T0)	HRS	62.9	72.4	0.37	88.9	7.9	54.3	3L
830356	YOLO	14(12, T1)	HRS	62.7	73.0	0.37	89.2	9.0	55.8	3M
830357	YOLO	6/15(12, T2)	HRS	62.5	73.3	0.37	89.7	10.4	55.1	3M
830358	PROBRAND 771	16(12, T0)	HRS	62.3	69.5	0.37	85.5	9.2	56.7	8L
830359	PROBRAND 771	6/17(12, T1)	HRS	62.7	70.7	0.36	87.6	9.1	56.4	8M
830360	PROBRAND 771	6/18(12, T2)	HRS	61.4	70.9	0.34	88.8	11.6	57.3	5H
830361	YECORA ROJO	19(13, T0)	HRS	65.1	69.7	0.41	83.8	8.7	59.3	8L
830362	YECORA ROJO	20(13, T1)	HRS	64.9	71.5	0.40	86.2	9.7	59.6	8M
830363	YECORA ROJO	6/21(13, T2)	HRS	64.6	72.2	0.37	88.4	11.5	58.2	5H
830364	YOLO	22(13, T0)	HRS	62.9	72.5	0.37	88.9	6.9	56.5	2L
830365	YOLO	23(13, T1)	HRS	63.4	73.5	0.36	90.1	8.3	55.5	3L
830366	YOLO	24(13, T2)	HRS	63.9	74.2	0.36	91.1	9.9	55.9	3M
830367	PROBRAND 771	25(13, T0)	HRS	62.7	70.5	0.37	86.9	8.4	57.1	8L
830368	PROBRAND 771	26(13, T1)	HRS	62.4	71.2	0.35	88.7	9.3	56.7	8M
830369	PROBRAND 771	6/27(13, T2)	HRS	62.0	72.1	0.33	90.4	11.4	56.9	5H
830370	YECORA ROJO	6/28(11, T1)	HRS	64.5	72.1	0.37	88.4	11.6	60.1	6H
830371	YECORA ROJO	6/29(11, T1)	HRS	64.5	71.8	0.38	87.6	11.5	59.0	6H
830372	YECORA ROJO	6/30(11, T1)	HRS	64.6	71.1	0.40	86.0	10.7	60.3	6H

1/ Observed Values Corrected to 14% Moisture Basis. 5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 10% Protein. 6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 10% Protein.



NURSCO 11

WESTSIDE STA. UC, CA

S. PETTYGROVE

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
830343	YECORA ROJO	1(11, T0)	HRS	62.4	63.9	7.1	805	898	4	Q-BCRGR
830344	YECORA ROJO	2(11, T1)	HRS	63.5	63.7	6.7	890	902	3	
830345	YECORA ROJO	3(11, T2)	HRS	63.9	61.4	5.1	1015	860	2	
830346	YOLO	4(11, T0)	HRS	54.0	57.2	2.0	730	928	9	VP-MTIME&BCRGR
830347	YOLO	5(11, T1)	HRS	54.2	55.9	2.2	850	955	9	VP-MTIME&BCRGR
830348	YOLO	6(11, T2)	HRS	56.6	56.4	1.7	955	943	9	VP-MTIME&BCRGR
830349	PROBRAND 771	7(11, T0)	HRS	57.4	59.4	5.0	855	979	6	P-BCRGR
830350	PROBRAND 771	8(11, T1)	HRS	59.2	59.6	5.9	930	955	6	P-BCRGR
830351	PROBRAND 771	9(11, T2)	HRS	59.2	58.0	4.7	1025	951	4	P-BCRGR
830352	YECORA ROJO	10(12, T0)	HRS	63.9	65.1	6.4	825	899	5	P-BCRGR
830353	YECORA ROJO	11(12, T1)	HRS	62.7	62.8	5.9	890	896	2	
830354	YECORA ROJO	12(12, T2)	HRS	65.3	63.3	5.7	990	866	2	
830355	YOLO	13(12, T0)	HRS	54.4	56.5	2.8	775	905	9	VP-BCRGR
830356	YOLO	14(12, T1)	HRS	56.0	57.0	2.1	925	987	4	P-MTIME&BCRGR
830357	YOLO	15(12, T2)	HRS	57.7	57.3	3.2	1020	995	2	ATYPICAL BAKING/YOLO
830358	PROBRAND 771	16(12, T0)	HRS	58.6	59.4	5.5	880	930	6	P-BCRGR
830359	PROBRAND 771	17(12, T1)	HRS	59.7	60.6	5.1	910	966	2	
830360	PROBRAND 771	18(12, T2)	HRS	62.1	60.5	3.8	1035	936	2	
830361	YECORA ROJO	19(13, T0)	HRS	63.2	64.5	6.4	800	881	6	P-BCRGR
830362	YECORA ROJO	20(13, T1)	HRS	64.5	64.8	5.5	840	859	4	P-BCRGR
830363	YECORA ROJO	21(13, T2)	HRS	63.9	62.4	4.6	985	892	2	P-MTIME, LVOL&BCRGR
830364	YOLO	22(13, T0)	HRS	54.6	57.7	2.3	710	902	9	
830365	YOLO	23(13, T1)	HRS	56.0	57.7	2.1	860	965	6	P-MTIME&BCRGR
830366	YOLO	24(13, T2)	HRS	57.0	57.1	2.0	950	956	6	P-MTIME&BCRGR
830367	PROBRAND 771	25(13, T0)	HRS	59.7	61.3	5.6	915	1014	9	P-BCRGR
830368	PROBRAND 771	26(13, T1)	HRS	61.2	61.9	5.2	925	968	6	P-BCRGR
830369	PROBRAND 771	27(13, T2)	HRS	62.5	61.1	4.7	1030	943	3	
830370	YECORA ROJO	28(11, T1)	HRS	65.9	64.3	6.0	1000	901	2	
830371	YECORA ROJO	29(11, T1)	HRS	64.7	63.2	4.7	965	872	2	
830372	YECORA ROJO	30(11, T1)	HRS	65.2	64.5	4.8	970	927	2	

COMMENTS: See the footnotes for those entries that have good overall quality. Id. No. 15 has baking properties atypical of Yolo, with the exception of water absorption. See "REMARKS" for specific deficiencies of other entries.

Q = Questionable; VP = Very Poor; P = Poor



NURSCO 12

POMEROY, WA

C.J. PETERSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC	RMKS
					1/ 1/		1/ 1/	3/ 3/			4/ 4/	
830373	KHARKOF		HRW	61.8	72.2	0.41	87.2	8.7	59.1	4M	8.39	8.46
830374		6/ OR007794	SWW	62.2	70.4	0.34	88.8	7.6	55.4	3M	9.22	9.18
830375		5/ OR000797	SWW	61.6	71.8	0.35	90.4	7.6	54.8	3M	9.10	9.06
830376		6/ ORCW8110	SWW	59.0	71.2	0.40	86.1	8.3	55.6	2M	9.10	9.13
830377		5/ ORCW8113	SWW	60.9	72.3	0.36	90.5	7.1	56.0	5M	9.02	8.93
830378		5/ ORCP0004	SWW	61.5	71.6	0.35	89.9	7.7	53.6	2L	9.15	9.12
830379		5/ OR000835	SWW	60.2	72.8	0.35	91.4	7.2	54.6	2M	9.24	9.15
830380		6/ OR007996	SWW	62.1	71.2	0.38	87.8	7.9	55.2	4M	9.34	9.33
830381		5/ WA0006813	SWW	60.8	74.7	0.37	92.9	7.8	55.8	3M	9.52	9.50
830382		6/ WA0006915	SWW	62.9	71.0	0.42	84.6	8.5	56.0	2M	9.27	9.33 Q-MSCOR
830383		6/ WA0006819	SWW	62.8	70.5	0.38	87.0	8.6	57.4	3M	8.95	9.02
830384		WA0006696	SWW	62.0	70.9	0.39	86.4	7.7	55.9	4L	8.79	8.75
830385		WA0006910	SWW	61.8	73.8	0.42	88.5	8.7	58.6	2M	8.65	8.73 Q-CODI
830386		6/ WA0006911	SWW	63.7	68.8	0.31	88.6	7.5	56.4	2L	9.30	9.24 Q-FYELD
830387		WA0006912	SWW	62.7	70.0	0.37	86.5	7.8	58.6	4M	9.05	9.03 Q-FYELD&MSCOR
830388		6/ WA0006914	SWW	65.0	73.9	0.38	90.8	8.1	58.9	6M	8.79	8.80 Q-CODI
830389		6/ WA007047	SWW	61.9	70.5	0.34	89.3	7.7	58.9	4M	9.37	9.34
830390	NUGAINES	CI013968	SWW	63.0	70.0	0.36	87.3	7.8	60.2	3M	8.99	8.96
830391		OR068007	SWW	62.0	72.9	0.38	89.8	7.4	55.9	3L	9.10	9.03
830392		CI017569	SWW	61.0	70.8	0.37	87.6	9.2	56.4	2M	9.11	9.24
830393	DAWS	CI017419	SWW	61.6	71.1	0.38	87.6	7.0	55.6	3L	8.89	8.78
830394	LEWJAIN	CI017909	SWW	63.1	70.5	0.35	88.8	6.9	57.1	3L	9.29	9.17
830395	BARBEE	CI017417	CLUB	60.9	69.4	0.39	84.4	7.7	51.7	1L	9.09	9.05
830396	FARO	CI017590	CLUB	60.8	73.1	0.34	92.6	7.0	53.4	2L	9.31	9.20
830397	CREW	CI017951	CLUB	61.5	73.4	0.38	90.0	6.8	54.2	2L	9.37	9.24
830398	TYEE	CI017773	CLUB	60.3	73.1	0.37	90.4	7.5	54.6	3L	9.12	9.07
830399		6/ WA0006698	SWW	61.7	72.4	0.39	88.1	7.5	52.5	1M	8.97	8.92
830400		6/ WA007050	SWW	60.3	71.8	0.37	88.8	8.5	57.1	3M	9.29	9.34
830401		5/ OR007792	SWW	62.3	72.2	0.40	87.7	8.1	55.0	2M	9.46	9.47
830402	MORO	5/ CI013740	CLUB	59.8	71.3	0.40	86.4	8.2	55.3	2M	9.36	9.38
830403	ELGIN	CI011755	SWW	62.1	73.4	0.41	88.7	6.9	53.1	1L	8.95	8.83
830404	PHOENIX	CI017962	HWW	65.0	71.8	0.38	88.5	8.6	58.8	4M	8.45	8.52
830405		ID745318	SWW	58.6	65.8	0.41	78.8	8.0	53.4	4L	8.66	8.66 P-FYELD&CODI
830406		OR008188	SWW	59.2	67.1	0.39	81.6	8.6	56.2	4L	8.85	8.92 P-FYELD&MSCOR
830407		OR007956	SWW	58.4	69.1	0.40	83.8	7.9	54.1	2M	9.26	9.25 Q-MSCOR

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 12

POMEROY, WA

C.J. PETERSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH		MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC RMKS	
						1/	3/						4/	
830408		VD081002	SWW	61.9	68.5	0.38		84.3	9.7	51.9	1M	9.36	9.55 P-FYELD	
830409		5/VD081108	SWW	63.0	72.4	0.37		89.6	8.3	51.4	3M	9.14	9.17	
830410		6/WA006581	SWW	63.4	70.0	0.36		87.3	8.6	52.9	2M	9.05	9.12	
830411		5/VD078181	SWW	62.2	72.2	0.38		89.0	7.3	50.8	2L	9.32	9.25	
830412		VB079342	SWW	62.1	69.8	0.37		86.3	6.8	54.7	3L	8.77	8.64 Q-MILLING&CODI	
830413		VH079309	SWW	61.2	71.3	0.40		86.2	6.5	54.7	5L	8.71	8.55 Q-CODI	
830414		VH078119	SWW	65.0	68.6	0.35		86.1	7.2	56.6	3L	9.22	9.14 P-FYELD	
830415		6/VJ079132	SWW	62.3	69.4	0.38		85.4	7.8	55.0	3L	8.95	8.93 Q-FYELD	
830416		6/VH079085	SWW	62.4	68.9	0.35		86.3	7.8	54.5	3L	9.29	9.27	
830417		VH075298	SWW	62.6	67.9	0.36		84.4	8.4	53.6	4L	9.25	9.29 P-MILLING	
830418		VH080833	SWW	61.6	66.6	0.37		82.0	9.0	56.4	4M	8.69	8.80 VP-MILLING	
830419		C1014586	SWW	62.8	68.0	0.34		85.9	8.1	55.0	4L	9.04	9.05 Q-MILLING	
830420		VH076279	SWW	61.3	67.7	0.37		83.4	9.1	53.8	4L	9.25	9.37 P-MILLING	
830421		6/VH081371	SWW	61.8	70.9	0.39		86.8	6.9	52.0	4L	9.16	9.04	
830422		5/VH080752	SWW	62.0	72.5	0.36		90.6	6.4	52.6	2L	9.31	9.14	
830423		6/VH080390	SWW	62.3	71.0	0.38		87.4	7.0	54.4	5L	8.91	8.80	
830424		VH081496	SWW	63.5	66.1	0.36		82.6	7.8	54.0	3L	9.41	9.39 P-MILLING	
830425		5/VH080368	SWW	65.0	72.6	0.38		89.5	7.7	52.0	3L	9.15	9.12	
830426		6/VH080505	SWW	62.7	69.1	0.37		85.6	8.3	55.0	3M	9.20	9.23	
830427		VM801041	SWW	62.1	70.1	0.40		84.9	8.7	54.4	3M	8.75	8.83 Q-MSCOR&CODI	
830428		6/VH081054	SWW	62.2	69.3	0.37		85.9	8.4	53.7	3L	9.26	9.31	
830429		VJ081146	SWW	60.0	67.1	0.41		80.7	9.0	53.1	4M	8.61	8.72 P-MILLING&CODI	
830430		6/VH080487	SWW	61.8	71.5	0.40		86.8	7.2	53.4	2L	8.95	8.86	
830431		VH081535	SWW	58.5	65.1	0.40		78.3	9.9	54.2	3M	8.84	9.05 VP-FYELD	
830432		6/VJ080172	SWW	61.4	71.2	0.38		87.8	8.1	53.5	2M	9.09	9.10	
830433		VH080214	SWW	62.0	65.2	0.38		80.1	8.1	52.7	4L	9.06	9.07 VP-FYELD	
830434		5/VD082007	SWW	62.1	73.0	0.36		91.1	6.9	51.2	1L	9.41	9.29	
830435		VD082010	SWW	60.8	69.2	0.39		84.4	7.9	50.7	1L	8.97	8.96 Q-FYELD	
830436		6/VD082011	SWW	61.2	71.0	0.39		86.4	8.4	53.6	2M	9.45	9.49	
830437		VC082154	SWW	61.9	69.0	0.41		83.1	7.9	51.3	3L	9.42	9.41 Q-MILLING	
830438		6/VD082162	SWW	60.8	69.6	0.41		83.8	8.6	49.4	2M	9.15	9.22 Q-MILLING	
830439		VJ082023	SWW	60.3	67.5	0.38		82.9	8.5	50.8	5M	8.95	9.00 P-FYELD	
830440		6/VJ082027	SWW	62.4	70.0	0.37		86.5	7.6	52.3	3L	9.22	9.18	
830441		VJ082029	SWW	61.5	70.9	0.44		83.4	7.3	54.3	4L	8.51	8.44 P-CODI	
830442		VJ082031	SWW	63.5	68.4	0.43		80.5	7.8	51.5	6L	9.29	9.27 P-MILLING	

LUKE



NURSCO 12

POMEROY, WA

C.J. PETERSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC RMKS			
												1/	2/	3/	4/
830443		6/VJ082033	SWW	60.3	72.2	0.37	89.4	6.2	54.2	5L	8.81	8.61	Q-CODI		
830444		5/VJ082037	SWW	61.4	73.8	0.38	91.1	6.0	54.9	2L	9.42	9.20			
830445		5/VJ082189	SWW	63.5	71.4	0.36	89.3	7.9	52.6	2M	9.39	9.38			
830446		5/VJ082193	SWW	62.2	74.1	0.39	90.5	7.4	50.5	1L	9.54	9.47			
830447		5/VJ082203	SWW	61.7	71.0	0.39	87.0	6.9	53.2	3L	9.20	9.08			
830448		6/VJ082215	SWW	62.8	71.4	0.38	87.7	6.4	54.0	3L	9.36	9.19	VP-MILLING		
830449		VH082053	SWW	62.9	65.4	0.36	81.2	7.5	53.5	6L	8.91	8.86			
830450		6/VH082055	SWW	64.4	70.1	0.37	86.7	7.3	54.1	3L	9.20	9.12			
830451		6/VH082061	SWW	64.0	70.8	0.37	87.7	6.2	54.9	3L	9.39	9.19			
830452		6/VH082089	SWW	59.8	71.3	0.41	85.8	5.9	54.0	5L	9.24	9.01			
830453		6/VH082106	SWW	61.4	70.4	0.37	87.4	7.3	54.7	5L	9.11	9.04			
830454		6/VH082123	SWW	62.9	71.0	0.39	86.4	6.5	54.1	2L	9.16	9.00			
830455		6/VH082124	SWW	61.2	69.5	0.33	88.3	7.3	53.2	2M	9.32	9.25			
830456		6/VH082244	SWW	61.1	71.5	0.34	90.2	5.9	56.1	4L	9.21	8.98			
830457		6/VH082252	SWW	61.3	71.4	0.35	89.5	6.8	53.5	3L	9.32	9.19			
830458		6/VH082254	SWW	60.3	70.8	0.38	87.3	6.6	54.3	2L	9.16	9.01			
830459		6/VH082257	SWW	62.1	70.7	0.34	89.2	6.5	53.9	5L	9.49	9.32			
830460		6/VH082258	SWW	61.0	69.7	0.37	86.4	6.5	54.8	3L	9.35	9.18	P-MILLING&CODI		
830461		VH082271	SWW	62.9	68.2	0.39	83.4	8.7	55.6	6M	8.49	8.56			
830462		6/VH082293	SWW	62.7	70.5	0.35	88.5	8.3	54.0	2M	8.89	8.92			
830463		VH082296	SWW	62.6	67.4	0.36	84.2	7.4	52.6	2L	9.10	9.03	P-FYELD		
830464		VH082316	SWW	63.3	67.3	0.35	84.4	7.3	55.0	3L	9.22	9.15	P-FYELD		
830465		VH082366	SWW	62.5	70.6	0.33	89.7	6.2	56.1	3L	8.99	8.79			
830466		VH082397	SWW	61.6	71.3	0.40	86.5	7.6	54.7	3L	8.56	8.52	P-CODI		
830467		5/VH082402	SWW	62.5	74.3	0.39	90.7	7.4	52.9	1M	8.81	8.75			
830468		6/VH082406	SWW	63.0	70.9	0.37	88.1	8.0	54.0	2M	8.86	8.86	P-CODI		
830469		VH082430	SWW	62.1	72.7	0.40	88.3	8.5	55.8	1M	8.47	8.53	P-CODI		
830470		VH082321	SWW	61.9	68.7	0.38	84.7	7.1	54.5	2L	8.67	8.58	P-CODI		
830471		6/VH082338	SWW	63.2	69.8	0.39	85.1	7.7	54.1	5L	9.34	9.30			
830472	CERCO	C1015922	HRW	62.8	72.2	0.41	86.9	6.8	56.6	3L	8.41	8.28			
830473		6/VH082051	SWW	62.3	69.8	0.38	86.0	7.7	54.3	4L	9.20	9.17	P-MILLING&CODI		
830474		VH082047	SWW	59.8	65.3	0.40	79.0	8.5	54.3	4L	8.64	8.69	P-MILLING&CODI		
830475		6/VH079121	SWW	61.8	71.4	0.39	87.0	8.6	53.7	3L	9.09	9.15			
830476		VM082760	SWW	60.2	66.5	0.45	77.0	8.2	56.3	4L	8.45	8.47	P-MILLING&CODI		
830477		VH080412	SWW	62.1	66.1	0.37	81.8	7.6	54.4	5L	8.97	8.93	P-MILLING		



NURSCO 12

POMEROY, WA

C.J. PETERSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT			MTYPE	CODI	CODIC	RMKS
								1'	1/	3/				4/
830478		6/ VH081029	SWW	62.9	69.6	0.40	84.2	8.6	56.2	3M	8.92	8.99	Q-MILLING	
830479		6/ VH081047	SWW	62.6	71.8	0.37	88.9	8.0	55.4	3L	8.80	8.80		
830480		6/ VC081086	SWW	61.5	71.1	0.38	87.3	8.2	54.8	3L	9.06	9.08		
830481		6/ VD081095	SWW	61.2	71.5	0.40	86.4	8.0	55.2	2L	9.05	9.05		
830482		6/ VD081103	SWW	61.0	71.4	0.41	86.2	8.0	53.3	2L	9.25	9.25		
830483		VD081110	SWW	61.6	69.0	0.40	83.6	8.0	52.4	2L	9.05	9.05	Q-MILLING	
830484		VH081262	SWW	63.0	66.0	0.42	78.7	7.4	54.4	4M	8.75	8.68	P-MILLING	
830485		VH081398	SWW	62.0	67.8	0.41	81.6	8.3	53.5	2L	8.70	8.73	P-MILLING	
830486		6/ VH081479	SWW	61.5	69.6	0.39	84.8	7.5	51.9	5L	8.92	8.87	Q-MILLING	
830487		6/ VH081482	SWW	62.5	70.9	0.37	87.5	7.5	55.1	3L	9.11	9.06		
830488		6/ VM801034	SWW	62.6	72.0	0.35	90.4	6.0	54.4	3L	9.30	9.08		
830489		6/ VJ076485	SWW	61.1	70.8	0.37	87.4	7.6	55.0	5L	9.05	9.01		
830490		VH081496	SWW	63.7	67.2	0.36	83.7	7.1	54.2	3L	8.99	8.89	P-MILLING	
830491		6/ VJ080156	SWW	60.1	69.6	0.37	85.9	8.5	54.4	3L	9.27	9.33		
830492		6/ VJ081009	SWW	62.2	71.4	0.37	88.7	7.6	53.0	3L	8.85	8.81		

COMMENTS:

There are many promising selections among the entries in this yield trial. The following five however are outstanding:  
WA6813, VD82007, VJ82037, VJ82193, and VH82402. They represent significant improvement in flour yield with good pastry  
flour properties. Several of the selections with stronger dough mixing properties were baked in bread test. Those with  
asterisks appear to have some potential for bread baking and/or dual purpose properties.  
Q = Questionable; P = Poor; VP = Very Poor

LAB. NO.	BREAD DATA			MIX	
	IDNO	BABS	TIME	LVOL	BCRSC
83373	Kharkof	64.2	3.2	805	6
83380	*OR007996	58.2	3.2	870	4
83384	WA006696	60.2	3.1	770	6
83387	*WA006912	57.7	2.7	828	4
83388	WA006914	62.7	3.5	770	8
83389	*WA007047	60.2	2.7	815	4
83390	Nugaines	59.7	2.0	850	5
83400	WA007050	58.2	2.6	825	5
83404	Phoenix	62.2	3.1	750	6
83418	VH080833	62.2	3.6	840	6
83423	VH080390	58.0	4.2	670	8
83439	*VJ082023	57.0	3.6	825	4
83441	VJ082029	61.0	3.6	670	8
83442	VJ082031	56.0	4.0	700	6
83456	VH082244	55.0	3.2	735	6
83472	Cerco	61.2	4.7	600	9
83476	VM082760	61.2	4.2	750	6
83478	*VH081029	61.7	4.3	800	4
83484	VH081262	60.2	4.2	770	6

\* Some promise for bread baking quality.





NURSCO 14

MANSFIELD/PULLMAN WA

G.W. BRUEHL

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
830521	SPRAGUE/LUKE//498 --MANSFIELD--	5/77-136	SWW	61.6	74.5	0.39	91.0	6.1	52.4	2L	
830522	PI173467/GNO-292-1//MORO	5/77-261	CLUB	60.0	76.8	0.37	95.3	5.7	52.3	2L	
830523	SPRAGUE/3/NORTENO YAMHILL//SPRAGUE	79-177	HW	63.0	71.6	0.35	88.7	6.1	57.0	2L	
830524	SPRAGUE/CAPPELLO F1//SPRAGUE	5/80-73	SWW	61.3	72.4	0.36	90.2	6.7	51.7	2L	
830525	SPRAGUE/CAPPELLO F1//SPRAGUE	5/80-83	SWW	61.3	73.0	0.36	91.1	6.2	52.7	2L	
830526	SPRAGUE/CAPPELLO F1//SPRAGUE	80-98	SWW	61.6	70.3	0.39	85.9	6.1	53.0	2L	
830527	SPRAGUE/CAPPELLO F1//SPRAGUE	6/80-124	SWW	61.7	72.9	0.38	89.9	6.2	53.7	2L	
830528	CJP CLUB/SPRAGUE	6/WAG819	SWW	60.4	72.0	0.34	90.9	6.1	53.3	2L	
830529	DAWS	C1017419	SWW	62.1	74.1	0.40	89.7	5.8	53.5	2L	
830530	JACMAR	WAG585	CLUB	59.6	75.7	0.40	92.2	5.8	51.7	2L	
830531	LEWJAIN	C1017902	SWW	62.6	74.1	0.37	91.9	6.0	53.3	2L	
830532	SPRAGUE	C1015376	SWW	62.0	74.4	0.38	91.5	5.8	53.7	2L	
830533	CJP CLUB/SPRAGUE	77-289	CLUB	56.8	69.7	0.52	76.9	7.7	49.2	1L	
830534	399-6/LUKE//498 --PULLMAN--	6/77-136	SWW	58.0	73.0	0.44	86.0	7.9	51.9	1L	
830535	CJP CLUB/SPRAGUE	6/77-287	SWW	61.2	73.4	0.41	88.6	7.9	49.3	2L	
830536	JACMAR	WAG585	CLUB	58.0	74.7	0.41	89.9	7.8	51.5	2L	
830537	SPRAGUE/NORTENO YAMHILL//SPRAGUE	79-177	HW	61.5	70.8	0.40	85.6	8.5	52.6	1M	
830538	SPRAGUE/CAPPELLO//SPRAGUE	80-98	SWW	57.9	71.5	0.44	83.9	8.5	49.8	1M	
830539	SPRAGUE/CAPPELLO//SPRAGUE	80-115	SWW	60.2	72.6	0.49	82.1	8.9	49.9	1M	
830540	SPRAGUE/NORTENO YAMHILL//SPRAGUE	5/80-168	SWW	61.1	74.3	0.44	87.8	8.6	50.8	1M	
830541	FR-20/77-291//77-294	BULK	HW	60.8	70.5	0.39	85.7	7.7	53.4	2M	
830542	127/236//236-7/STURDY	77-99	HW	62.4	71.7	0.38	87.2	9.2	55.9	7M	60.3
830543	7437/MC//UT755204/3/237-3	77-233	HRW	61.5	73.2	0.35	90.6	9.5	54.7	4M	60.9
830544	236-7/STURDY//UT755204	80-1	HRW	59.6	72.6	0.44	85.4	8.9	55.2	4M	
830545	GOLILS CROSS	GOLILS	SRW	59.5	70.4	0.43	83.3	9.7	50.0	4M	
830546	CARGILL		HRW	63.2	75.0	0.44	87.5	9.7	52.4	2M	57.3

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 7% Protein.

4/ Observed Values Corrected to 7% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 14

MANSFIELD/PULLMAN WA

G.W. BRUEHL

LABNUM	VARIETY	IDNO	CLASS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	CODI	CODIC 4/	RMKS
830521	SPRAGUE/LUKE//498 --MANSFIELD--	77-136	SWW						9.56	9.46	
830522	P1173467/GNO-292-1//MORO	77-261	CLUB						9.55	9.46	
830523	SPRAGUE/3/NORTENO YAMHILL//SPRAGUE	79-177	HW						8.64	8.57	Short mixing-Low COD
830524	SPRAGUE/CAPPELLO F1//SPRAGUE	80-73	SWW						9.14	9.10	
830525	SPRAGUE/CAPPELLO F1//SPRAGUE	80-83	SWW						9.37	9.29	Q-FYELD
830526	SPRAGUE/CAPPELLO F1//SPRAGUE	80-98	SWW						9.17	9.08	
830527	SPRAGUE/CAPPELLO F1//SPRAGUE	80-124	SWW						9.12	9.04	
830528	CJP CLUB/SPRAGUE	WA6819	SWW						9.11	9.01	
830529	DAWS	C1017419	SWW						8.95	8.82	
830530	JAGMAR	WA6585	CLUB						9.90	9.81	
830531	LEWJAIN	C1017909	SWW						9.47	9.36	
830532	SPRAGUE	C1015376	SWW						9.14	9.06	
830533	CJP CLUB/SPRAGUE	77-289	CLUB						9.06	9.11	P-MILLING
830534	399-6/LUKE//498 --PULLMAN--	77-136	SWW						9.45	9.55	Q-MILLING
830535	CJP CLUB/SPRAGUE	77-287	SWW						9.15	9.25	
830536	JAGMAR	WA6585	CLUB						9.37	9.43	
830537	SPRAGUE/NORTENO YAMHILL//SPRAGUE	79-177	HW						8.49	8.61	Short mix-L-CODI
830538	SPRAGUE/CAPPELLO//SPRAGUE	80-98	SWW						9.11	9.28	Low MSCOR
830539	SPRAGUE/CAPPELLO//SPRAGUE	80-115	SWW						9.04	9.25	Low MSCOR
830540	SPRAGUE/NORTENO YAMHILL//SPRAGUE	80-168	SWW						9.34	9.51	
830541	FR-20/77-291//77-294	BULK	HW						8.61	8.67	Short mix -Low CODI
830542	127/236//236-7/STURDY	77-99	HW	58.1	4.7	730	594	8	8.31	8.49	L-LVOL & BCRGR
830543	7437/MC//UT75204/3/237-3	77-233	HRW	58.4	2.6	715	560	8	8.46	8.66	L-LVOL & BCRGR
830544	236-7/STURDY//UT75204	80-1	HRW						8.60	8.75	
830545	GOLILS CROSS	GOLILS	SRW						8.69	8.98	L-FYELD & MSCOR
830546	CARGILL		HRW	54.6	2.1	855	688	6	8.75	8.97	

COMMENTS: Several of the soft white and the club selection (77-261) are promising in overall quality characteristics. Selections 79-177, the bulk of FR-20/77-291//77-294, and 77-99 are hard textured white wheats and 77-233 and 80-1 are hard red winters. Protein content was too low for meaningful bread baking tests of the hard wheats.

Q = Questionable; 1 = Low; P = Poor



NURSCO 15

MOSCOVI, ID

C.T. LIU

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC	RMKS
830547	NUGAINES	C1013968	SWW	59.1	70.3	0.40	85.4	5.7	54.1	1L	9.26	9.11	
830548	DAWS	C1017419	SWW	59.7	72.2	0.41	86.7	6.0	53.4	1L	9.21	9.10	
830549	STEPHENS	C1017569	SWW	58.7	73.0	0.39	89.3	6.0	51.3	1L	9.37	9.26	
830550		ID5318	SWW	60.0	69.6	0.43	82.3	6.1	55.2	1L	9.00	8.90	Q-MILLING
830551		ID80-1239	HWW	62.6	69.1	0.41	83.2	7.2	58.2	2L	8.36	8.38	Hard - P-MILLING
830552		ID80-994	SWW	61.5	70.0	0.45	81.9	7.4	51.5	1L	8.81	8.86	COOKIE
830553		ID80-855	HWW	62.3	68.4	0.43	81.3	6.5	58.0	2L	8.66	8.62	Q-MILLING
830554		5/ ID80-628	SWW	58.6	71.7	0.39	87.7	6.1	52.5	2L	9.35	9.25	H-P-MILL & COOKIE
830555		ID80-270	HRW	62.4	70.2	0.40	85.0	7.9	54.6	2M	8.40	8.47	L-ABS. Short Mix
830556		6/ ID80-038	SRW	62.5	71.2	0.35	89.5	8.0	49.5	1M	9.00	9.11	Soft - Short Mix

1/ Observed Values Corrected to 14% Moisture Basis. 5/ Particularly Promising Overall Quality Characteristics.3/ Absorption at 14% Moisture Corrected to 7% Protein. 6/ Promising Overall Quality Characteristics.4/ Observed Values Corrected to 7% Protein.

COMMENTS: Selections ID5318 and ID80-994 have fair baking properties but are questionable in milling characteristics. ID80-1239 and 80-855 have hard endosperm, which was reflected in small cookie diameters. These two selections were also low in flour yield, particularly for hard wheats. Neither of the two red wheats are suited for bread making, as both are low in absorption and short in dough mixing properties. ID80-038 is soft and does have good overall soft wheat quality.

Q = Questionable; H = Hard; P = Poor; L = Low





NURSCO 16

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/ 3/		1/ 3/		
830557	AZTECA X ANZA	310/E5	HRS	65.4	70.1	0.40	84.7	9.0	58.6	3M
830558	(TOB X CIANO 5) X ANZA	6/ 310/E6	HRS	64.8	73.4	0.33	91.6	11.0	59.6	3M
830559	JILGUERO X SEL 44	310/E11	HRS	62.2	69.2	0.38	84.8	10.1	60.0	4M
830560	PORTOLA X ANZA	310/E12	HRS	65.9	72.7	0.35	90.3	9.7	59.9	4M
830561	STURDY X ANZA	310/E13	HRS	64.7	70.7	0.39	85.6	9.9	58.7	2H
830562	TZPP X ANZA2	310/E14	HRS	64.1	73.8	0.37	90.0	9.1	59.3	2H
830563	TZPP X ANZA2	5/ 310/E15	HRS	64.9	73.5	0.38	89.4	9.6	61.1	2H
830564	TZPP X ANZA2	5/ 310/E16	HRS	64.5	73.0	0.39	88.3	9.8	61.3	2H
830565	TZPP X ANZA2	310/E19	HRS	64.0	71.1	0.39	86.4	9.4	59.2	7M
830566	TZPP X ANZA2	5/ 310/E20	HRS	64.0	72.8	0.37	89.0	9.9	61.6	4M
830567	TZPP X ANZA2	6/ 310/E21	HRS	64.7	73.2	0.39	88.6	9.4	59.1	6M
830568	TZPP X ANZA2	310/E22	HRS	64.6	73.6	0.39	89.0	9.0	60.8	6M
830569	TZPP X ANZA2	310/E23	HRS	64.8	67.7	0.36	84.1	8.5	57.3	2M
830570	TZPP X ANZA2	6/ 310/E25	HRS	65.1	72.9	0.36	89.5	9.9	62.4	6M
830571	ANZA2 X P1190982	310/E27	HRS	63.8	71.7	0.39	87.0	9.1	58.7	3M
830572	(SEL14 X BURT-2-16) X 166 X TAN-71	310/E29	HRS	64.5	73.9	0.38	89.5	8.7	59.6	3M
830573	ANZA X 166 X (SEL14*2BURT-2-16)	310/E30	HRS	65.8	73.0	0.44	85.6	9.8	60.5	3M
830574	CUCKOO S' X B6	310/E32	HRS	63.5	67.4	0.40	82.1	8.7	60.8	7M
830575	CNO-INIA S' X B6	310/E33	HRS	63.4	67.0	0.36	83.3	8.7	62.8	7M
830576	VEERY S'	310/E34	HRS	63.6	68.3	0.42	82.0	9.3	60.5	7M
830577	LRR ANZA	310/E35	HRS	64.8	72.9	0.37	89.4	8.8	60.2	2M
830578	CM43367	310/E36	HWS	65.4	72.1	0.42	86.1	8.9	58.4	2M
830579	ANZA	310/E37	HRS	64.5	72.9	0.36	89.5	8.6	58.7	2M
830580	YECORA ROJO	310/E38	HRS	63.5	70.5	0.38	86.4	9.9	61.3	7H
830581	YOLO	310/E39	HRS	64.2	72.4	0.39	87.6	8.7	58.8	3M
830582	NK PROBRAND 771	310/E41	HRS	60.4	70.0	0.37	86.3	10.1	59.0	8M
830583	OSLO	310/E42	HRS	63.5	73.0	0.38	88.7	10.7	60.4	6M
830584	WEST BRED 911	310/E43	HRS	63.3	68.9	0.42	82.6	9.3	60.0	6M
830585	KLASIC	310/E44	HWS	64.0	72.3	0.38	88.3	10.2	58.6	7H
830586	BB S' X ANZA	310/E46	HRS	63.1	73.2	0.39	88.5	8.8	57.7	3M
830587	AZTECA X ANZA	310/E47	HRS	66.1	70.1	0.39	85.1	9.2	59.9	4M
830588	((INIA X CNO) X CALIDAD) X ANZA	6/ 310/E48	HRS	64.3	72.5	0.39	87.7	10.0	58.8	4M
830589	((INIA X CNO) X CALIDAD) X ANZA	6/ 310/E49	HRS	64.5	74.0	0.38	89.7	10.3	59.4	3M
830590	((INIA X CNO) X CALIDAD) X ANZA	6/ 310/E50	HRS	64.5	73.2	0.37	89.3	10.0	60.0	3M
830591	((INIA X CNO) X CALIDAD) X ANZA	310/E51	HRS	65.7	73.9	0.41	88.2	9.5	58.7	3M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 16

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
830557	AZTECA X ANZA	310/E5	HRS	59.8	60.8	2.2	810	872		6 Q-FYELD,P-LVOL&BCRGR
830558	(TOB X CIANO 5) X ANZA	310/E6	HRS	61.3	60.3	1.9	945	883		2 Q-LVOL&MTIME
830559	JILGUERO X SEL 44	310/E11	HRS	62.3	62.2	3.2	905	899		3 P-FYELD,Q-BCRGR
830560	PORTOLA X ANZA	310/E12	HRS	60.8	61.1	2.5	870	889		6 P-LVOL&BCRGR
830561	STURDY X ANZA	310/E13	HRS	59.8	59.9	1.9	900	906		5 P-LVOL&BCRGR
830562	TZPP X ANZA2	310/E14	HRS	59.1	60.0	1.5	840	896		5 P-LVOL&BCRGR
830563	TZPP X ANZA2	310/E15	HRS	62.9	63.3	2.3	960	985		2
830564	TZPP X ANZA2	310/E16	HRS	62.3	62.5	2.2	965	977		1
830565	TZPP X ANZA2	310/E19	HRS	61.8	62.4	4.3	835	872		8 VP-LVOL&BCRGR
830566	TZPP X ANZA2	310/E20	HRS	62.7	62.8	2.5	958	964		2
830567	TZPP X ANZA2	310/E21	HRS	61.2	61.8	2.7	945	982		3 Q-BCRGR
830568	TZPP X ANZA2	310/E22	HRS	62.0	63.0	3.3	855	917		8 VP-LVOL&BCRGR
830569	TZPP X ANZA2	310/E23	HRS	57.0	58.5	2.1	760	853		8 VP-LVOL&BCRGR
830570	TZPP X ANZA2	310/E25	HRS	65.0	65.1	3.9	925	931		3 Q-BCRGR
830571	ANZA2 X P1190982	310/E27	HRS	59.0	59.9	1.9	840	896		6 VP-LVOL&BCRGR
830572	((SEL14 X BURT-2-16) X 166 X TAN-71	310/E29	HRS	59.5	60.8	1.9	845	926		7 VP-LVOL&BCRGR
830573	ANZA X 166 X (SEL14*2BURT-2-16)	310/E30	HRS	61.0	61.2	1.9	900	912		4 VP-LVOL&BCRGR
830574	CUCKOO S' X B6	310/E32	HRS	63.2	64.5	3.1	750	831		9 VP-LVOL&BCRGR
830575	CNO-INIA "S" X B6	310/E33	HRS	64.7	66.0	3.5	755	836		8 VP-LVOL&BCRGR
830576	VEERY "S"	310/E34	HRS	63.0	63.7	3.2	805	848		7 VP-LVOL&BCRGR
830577	LRR ANZA	310/E35	HRS	59.2	60.4	1.3	815	889		5 VP-LVOL&BCRGR
830578	CM43367	310/E36	HWS	60.5	61.6	2.1	710	776		6 VP-LVOL&BCRGR
830579	ANZA	310/E37	HRS	58.0	59.4	1.2	830	915		7 VP-LVOL&BCRGR
830580	YECORA ROJO	310/E38	HRS	63.9	64.0	7.3	940	946		2
830581	YOLO	310/E39	HRS	58.7	60.0	2.2	905	986		3 Q-BCRGR
830582	NK PROBRAND 771	310/E41	HRS	60.8	60.7	5.8	980	974		2
830583	OSLO	310/E42	HRS	61.8	61.1	4.1	1040	997		2
830584	WEST BRED 911	310/E43	HRS	64.5	65.2	5.2	825	868		5 P-LVOL&BCRGR
830585	KLASIC	310/E44	HWS	61.0	60.8	6.3	1025	1013		2
830586	BB "S" X ANZA	310/E46	HRS	57.2	58.4	2.0	940	1014		6 P-LVOL&BCRGR
830587	AZTECA X ANZA	310/E47	HRS	61.3	62.1	2.7	840	890		6
830588	((INIA X CNO) X CALIDAD) X ANZA	310/E48	HRS	60.5	60.5	2.7	930	930		2
830589	((INIA X CNO) X CALIDAD) X ANZA	310/E49	HRS	60.9	60.6	2.0	930	911		2 Q-MTIME
830590	((INIA X CNO) X CALIDAD) X ANZA	310/E50	HRS	61.2	61.2	2.0	930	930		3 Q-BCRGR
830591	((INIA X CNO) X CALIDAD) X ANZA	310/E51	HRS	59.4	59.9	2.1	855	886		5 P-LVOL&BCRGR



ADVANCED COMMON WHEAT YIELD TRIAL

NURSCO 16

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
830592	(CNO2 X INIA) X ANZA	310/E52	HRS	64.1	72.0	0.37	88.1	9.4	59.8	3M
830593	STURDY X ANZA	310/E53	HRS	64.6	70.8	0.39	86.1	10.1	60.9	4H
830594	ANZA X "166 X (SEL142 X BURT-2-16)"	310/E57	HRS	64.2	73.0	0.36	89.6	9.0	58.8	3M
830595	M18143	310/E60	HWS	63.5	74.6	0.42	89.1	8.8	56.5	2M
830596	BB "S" X ANZA	310/E61	HRS	65.6	72.0	0.36	88.9	10.0	59.8	4H
830597	YR "S" (R) X MEXIFEN	5/ 310/E62	HRS	63.8	72.7	0.38	88.3	10.2	58.5	7H
830598	(C113232 X R50) X ANZA	310/E64	HRS	62.2	70.4	0.37	86.6	10.3	58.9	3M
830599	ANZA X (SEL14 X 50-3) X 166"	310/E65	HWS	61.9	68.9	0.41	82.7	9.5	60.1	3M
830600	((BC60 X C113232) X 166) X ANZA	310/E68	HWS	63.7	73.0	0.46	85.0	9.0	56.1	2M
830601	((BB X CHA) X FKN2 X (FR X (KAD X GB)))	310/E69	HWS	64.9	73.2	0.42	87.6	9.8	59.6	3H
830602	CIMMYT 81CB/55	310/E73	HWS	63.8	69.2	0.36	85.6	12.7	59.8	2H
830603	TZPP X ANZA2	310/E75	HRS	64.5	74.7	0.39	90.1	9.6	59.2	4M
830604	TZPP X ANZA2	310/E76	HRS	65.5	73.4	0.36	90.1	9.5	60.1	2H
830605	TZPP X ANZA2	310/E77	HRS	63.7	73.1	0.38	88.9	9.0	58.5	3M





NURSCO 16

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
830592	(CNO2 X INIA) X ANZA	310/E52	HRS	57.4	58.0	1.7	910	947	6	P-BCRGR
830593	STURDY X ANZA	310/E53	HRS	63.2	63.1	2.8	935	929	4	P-BCRGR
830594	ANZA X 166 X (SEL142 X BURT-2-16)	310/E57	HRS	59.0	60.0	1.8	840	902	6	P-BCRGR
830595	M18143	310/E60	HWS	56.5	57.7	1.8	730	802	9	P-BCRGR
830596	BB "S" X ANZA	310/E61	HRS	63.0	63.0	3.7	950	950	4	P-BCRGR
830597	YR "S" (R) X MEXIFEN	310/E62	HRS	60.9	60.7	6.6	970	958	2	
830598	(C113232 X R50) X ANZA	310/E64	HRS	60.4	60.1	2.0	965	946	5	P-BCRGR
830599	ANZA X (SEL14 X 50-3) X 166	310/E65	HWS	60.8	61.3	2.1	815	846	6	P-LVOL&BCRGR
830600	((BC60 X C113232) X 166) X ANZA	310/E68	HWS	55.3	56.3	1.2	615	675	9	P-LVOL&BCRGR
830601	(BB X CHA) X FKN2 X (FR X (KAD X GB)))	310/E69	HWS	62.6	62.8	2.8	870	882	5	P-LVOL&BCRGR
830602	CIMMYT 81CB/55	310/E73	HWS	65.7	63.0	2.8	905	738	4	P-LVOL&BCRGR
830603	TZPP X ANZA2	310/E75	HRS	61.0	61.4	3.0	830	855	4	P-LVOL&BCRGR
830604	TZPP X ANZA2	310/E76	HRS	61.8	62.3	3.2	870	901	6	P-LVOL&BCRGR
830605	TZPP X ANZA2	310/E77	HRS	58.2	59.2	1.5	790	852	5	P-LVOL&BCRGR

COMMENTS: Many of these experimental crosses are carrying the poor baking characteristics of Anza (short dough mixing properties, low loaf volume, and heavy coarse crumb grain structure). Several do however have good overall baking properties and are noted with footnotes (5/and 6/). See Remarks for specific deficiencies.

P = Poor; Q = Questionable; VP = Very Poor



NURSCO 17

DAVIS, CA

H.E. VOGT

LABNUM	VARIETY	IDNO	CLASS	TWT	FYLD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
830606	TADORNA * 166	306/E3	HRS	63.9	66.9	0.31	86.1	7.8	55.9	8L
830607	TADORNA * 166	306/E4	HRS	63.2	70.7	0.33	88.9	8.4	55.4	5L
830608	TADORNA * 166	306/E6	HRS	64.4	69.4	0.37	85.8	8.1	58.3	3L
830609	TADORNA * 166	306/E7	HRS	63.9	70.6	0.36	87.3	7.4	57.2	2L
830610	TADORNA * 166	306/E8	HRS	64.5	68.3	0.32	87.0	9.3	56.7	3M
830611	TADORNA * 166	306/E9	HRS	64.3	68.4	0.35	85.7	7.5	56.5	2L
830612	CLEO * 166	306/E10	HRS	64.0	66.5	0.31	85.9	8.5	53.0	2L
830613	(NUDIF TP250 * 166) * ANZA	306/E13	HRS	64.2	70.6	0.36	87.3	8.3	57.5	3M
830614	(NUDIF TP250 * 166) * ANZA	306/E15	HRS	61.9	71.6	0.38	87.4	7.8	55.7	3L
830615	TADORNA * 166	6/ 306/E17	HRS	63.2	67.1	0.33	85.5	9.0	55.1	6L
830616	P.WALKER MONRO * 166R * (CLEO * ....	306/E19	HRS	62.6	66.3	0.30	85.7	8.4	55.9	6L
830617	TADORNA * 166	306/E21	HRS	64.3	66.7	0.30	86.3	8.6	56.1	4L
830618	CLEO * 166	306/E24	HRS	63.0	67.5	0.33	85.9	8.0	54.1	4L
830619	(TADORNA * 166)E4 * ANZA	306/E27	HRS	64.2	70.7	0.37	86.7	7.9	53.8	2L
830620	(TADORNA * 166) * 166R	306/E29	HRS	64.1	69.7	0.39	84.7	7.8	55.9	3L
830621	(TADORNA * 166) * 166R	306/E32	HRS	64.4	68.8	0.37	84.7	9.0	56.5	4L
830622	(CLEO * 166) * ANZA	306/E37	HRS	65.0	66.8	0.38	82.5	9.0	55.3	3M
830623	(CLEO * 166) * ANZA	306/E38	HRS	65.1	65.8	0.38	81.3	8.6	58.2	3M
830624	KL.REND * 166R * (CLEO * 166)166R	307/E3	HRS	65.4	68.4	0.44	80.9	8.5	56.7	8M
830625	(MEXP 65 * SAL-SEAT)YEC.ROJO * ....	307/E9	HRS	63.5	70.3	0.43	83.5	6.7	56.6	5L
830626	(MEXP 65 * SAL-SEAT)YEC.ROJO * ....	307/E10	HRS	63.7	70.5	0.43	83.6	7.6	56.4	5L
830627	(CLEO * 166) * ANZA	307/E38	HRS	64.4	70.4	0.42	84.1	8.1	57.7	3L
830628	(TADORNA * 166) * 166R	308/E25	HRS	64.4	66.0	0.32	84.7	10.0	54.7	3L
830629	ANZA(CI015284)	306/E5	HRS	63.5	70.4	0.41	84.7	8.8	54.0	1M
830630	YECORA ROJO	306/E31	HRS	59.9	69.1	0.40	83.4	11.8	57.9	4H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 17

DAVIS, CA

H.E. VOGT

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
830606	TADORNA * 166	306/E3	HRS	58.4	58.6	5.5	680	692	7	VP-LVOL&BCRGR
830607	TADORNA * 166	306/E4	HRS	56.5	56.1	2.7	840	815	8	VP-LVOL&BCRGR
830608	TADORNA * 166	306/E6	HRS	63.6	63.5	3.3	715	709	9	VP-LVOL&BCRGR
830609	TADORNA * 166	306/E7	HRS	59.8	60.4	2.2	630	667	9	VP-LVOL&BCRGR
830610	TADORNA * 166	306/E8	HRS	64.2	62.9	3.3	675	594	9	VP-LVOL&BCRGR
830611	TADORNA * 166	306/E9	HRS	58.2	58.7	2.1	585	616	9	VP-LVOL&BCRGR
830612	CLEO * 166	306/E10	HRS	54.7	54.2	1.8	545	514	9	VP-LVOL&BCRGR
830613	(NUDIF TP250 * 166) * ANZA	306/E13	HRS	63.0	62.7	2.0	855	836	6	VP-LVOL&BCRGR
830614	(NUDIF TP250 * 166) * ANZA	306/E15	HRS	60.7	60.9	3.1	720	732	8	VP-LVOL&BCRGR
830615	TADORNA * 166	306/E17	HRS	59.3	58.3	4.3	880	818	3	VP-LVOL&BCRGR
830616	P. WALKER MONRO * 166R * (CLEO * 166)	306/E19	HRS	60.5	60.1	3.9	805	780	6	VP-LVOL&BCRGR
830617	TADORNA * 166	306/E21	HRS	60.9	60.3	3.0	775	738	8	
830618	CLEO * 166	306/E24	HRS	58.3	58.3	3.9	825	825	8	
830619	(TADORNA * 166)E4 * ANZA	306/E27	HRS	55.9	56.0	2.2	610	616	9	
830620	(TADORNA * 166) * 166R	306/E29	HRS	59.9	60.1	2.1	740	752	9	
830621	(TADORNA * 166) * 166R	306/E32	HRS	62.7	61.7	2.6	655	593	9	
830622	(CLEO * 166) * ANZA	306/E37	HRS	64.0	63.0	2.9	680	618	9	
830623	(CLEO * 166) * ANZA	306/E38	HRS	65.0	64.4	2.4	690	653	9	
830624	KL.REND * 166R * (CLEO * 166)166R	307/E3	HRS	63.9	63.4	4.6	735	704	9	
830625	(MEXP 65 * SAL-SEAT)YEC.ROJO * (CLEO * 166)166R	307/E9	HRS	61.5	62.8	3.8	740	821	9	
830626	(MEXP 65 * SAL-SEAT)YEC.ROJO * (CLEO * 166) * ANZA	307/E10	HRS	60.2	60.6	3.8	735	760	9	
830627	(CLEO * 166) * ANZA	307/E38	HRS	62.0	61.9	3.6	765	759	8	
830628	(TADORNA * 166) * 166R	308/E25	HRS	60.9	58.9	2.7	775	651	8	
830629	ANZA(C1015284)	306/E5	HRS	59.0	58.2	1.9	700	650	9	
830630	YECORA ROJO	306/E31	HRS	66.9	63.1	4.4	945	709	3	

COMMENTS:

These selections are extremely poor (as a group) in milling and baking quality. They were low in protein (with the exception of Yecora Rojo and Sel. 308/E25) for the most meaningful analysis; however, protein quality is not the dominant problem, as they lack basic bread making properties for their protein level. Selection 306/E17 appears to be significantly better than all others, but does have a low flour yield.

VP = Very Poor





NURSCO 18

PULLMAN, WA

C. J. PETERSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC RMKS	
												1/ 2/	4/
830631	STEPHENS	CI017596	SWW	59.5	72.6	0.35	91.0	8.0	53.1	2L	8.99	9.10	
830632	STEPHENS/DAWS		SWW	59.8	70.3	0.34	88.8	7.4	49.9	2L	8.97	9.02	
830633	STEPHENS/HILL 81		SWW	59.4	70.5	0.35	88.4	8.2	50.2	2L	8.96	9.09	
830634	STEPHENS/LEWJAIN		SWW	59.0	70.4	0.32	90.2	7.5	50.8	3L	9.54	9.59	
830635	STEPHENS/LUKE		SWW	58.9	70.9	0.34	89.5	7.7	50.7	3L	9.41	9.49	
830636	STEPHENS/WA6910 113	CI017419	SWW	59.0	70.1	0.33	89.3	7.6	49.9	2L	9.41	9.48	
830637	STEPHENS/WA6912 115		SWW	58.9	69.0	0.34	87.6	7.9	48.9	1L	9.30	9.40	
830638	STEPHENS/ARBEE		SWW	56.9	69.3	0.36	86.4	7.2	48.1	1L	9.44	9.46	
830639	STEPHENS/JACMAR		SWW	57.2	73.2	0.34	92.5	7.9	48.2	1L	9.42	9.52	
830640	STEPHENS/TYEE		SWW	57.0	72.1	0.34	91.0	7.2	49.0	1L	9.21	9.23	
830641	DAWS	CI017954	SWW	61.2	70.5	0.36	88.0	6.9	50.9	2L	8.92	8.91	
830642	DAWS/HILL 81		SWW	61.0	70.9	0.35	88.8	7.4	50.4	2L	9.05	9.09	
830643	DAWS/LEWJAIN		SWW	60.0	70.3	0.35	88.4	7.3	51.3	2L	9.15	9.18	
830644	DAWS/LUKE		SWW	60.2	71.7	0.35	90.0	7.2	50.6	2L	9.41	9.43	
830645	DAWS/WA6910		SWW	59.7	69.4	0.35	87.0	7.3	50.5	2L	9.27	9.31	
830646	DAWS/WA6912	CI017909	SWW	59.9	69.7	0.34	88.0	7.3	49.5	2L	9.01	9.05	
830647	DAWS/ARBEE		SWW	57.8	68.3	0.34	86.2	7.0	48.4	1L	9.20	9.20	
830648	DAWS/JACMAR		SWW	57.2	70.6	0.35	88.8	7.7	48.2	2L	9.05	9.13	
830649	DAWS/TYEE		SWW	58.6	71.5	0.34	90.5	7.3	50.0	2L	8.94	8.97	
830650	HILL 81		SWW	60.2	72.5	0.34	92.0	8.3	49.6	2L	9.15	9.29	
830651	HILL 81/LEWJAIN	CI014586	SWW	60.8	70.8	0.34	89.7	7.5	50.6	2L	9.39	9.44	
830652	HILL 81/LUKE		SWW	60.0	71.0	0.35	89.2	8.0	50.8	3L	9.32	9.43	
830653	HILL 81/WA6910		SWW	59.8	70.3	0.35	88.5	7.8	50.0	2L	9.29	9.38	
830654	HILL 81/WA6912		SWW	59.2	70.0	0.35	87.9	8.7	48.6	1L	8.94	9.12	
830655	HILL 81/ARBEE		SWW	57.9	70.0	0.35	87.8	7.7	49.0	1L	9.35	9.43	
830656	HILL 81/JACMAR	CI017909	SWW	57.8	71.6	0.38	88.3	7.8	48.4	2L	9.59	9.68	
830657	HILL 81/TYEE		SWW	57.9	70.8	0.35	88.7	7.4	49.7	2L	9.02	9.07	
830658	LEWJAIN		SWW	60.3	69.8	0.36	87.2	7.7	51.7	3L	9.57	9.65	
830659	LEWJAIN/LUKE		SWW	59.9	70.7	0.33	90.0	7.3	51.5	5L	9.50	9.53	
830660	LEWJAIN/WA6910		SWW	58.9	70.2	0.36	87.6	7.6	50.6	2L	9.35	9.42	
830661	LEWJAIN/WA6912	CI014586	SWW	60.4	69.3	0.34	88.0	7.6	50.2	2L	9.51	9.58	
830662	LEWJAIN/ARBEE		SWW	58.6	69.3	0.35	87.2	7.3	50.5	1L	9.47	9.51	
830663	LEWJAIN/JACMAR		SWW	57.9	70.4	0.34	89.0	7.1	50.2	5L	9.25	9.26	
830664	LEWJAIN/TYEE		SWW	57.5	72.0	0.34	91.1	7.1	50.4	2L	9.41	9.42	
830665	LUKE		SWW	59.0	71.6	0.34	90.9	7.3	51.1	3L	9.24	9.26	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 7% Protein.

4/ Observed Values Corrected to 7% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 18

PULLMAN, WA

C.J. PETERSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC RMKS			
												1/	3/	4/	
830666	LUKE/WA6910		SWW	59.3	71.2	0.33	90.5	7.3	51.6	2L	9.31			9.35	
830667	LUKE/WA6912		SWW	59.2	70.3	0.34	89.2	7.2	49.7	2L	9.25			9.27	
830668	LUKE/ARBEE		SWW	57.3	71.0	0.35	89.2	7.0	49.4	1L	9.66			9.66	
830669	LUKE/JACMAR		SWW	57.4	71.2	0.33	90.8	7.2	49.6	2L	9.39			9.41	
830670	LUKE/TYEE		SWW	58.0	72.4	0.34	91.6	7.1	49.9	2L	9.31			9.32	
830671	WA6910		SWW	58.9	68.9	0.36	86.1	7.2	49.2	2L	9.29			9.31	
830672	WA6910/WA6912		SWW	59.3	68.2	0.35	85.7	7.3	49.5	1L	9.36			9.40	
830673	WA6910/ARBEE		SWW	56.3	67.1	0.35	84.0	6.8	48.2	1L	9.49			9.47	
830674	WA6910/JACMAR		SWW	56.0	70.7	0.37	87.5	6.9	49.9	2L	9.57			9.56	
830675	WA6910/TYEE		SWW	57.8	70.7	0.37	87.8	7.7	48.0	2L	9.29			9.36	
830676	WA6912		SWW	57.2	68.8	0.33	87.5	7.5	49.0	1L	9.27			9.33	
830677	WA6912/ARBEE		SWW	57.3	67.4	0.35	84.7	7.1	48.0	1L	9.19			9.20	
830678	WA6912/JACMAR		SWW	55.4	70.6	0.36	88.4	7.3	48.6	1L	9.37			9.41	
830679	WA6912/TYEE		SWW	57.2	71.6	0.34	90.6	7.0	49.2	1L	9.60			9.60	
830680	ARBEE	CI017417	CLUB	55.0	68.1	0.34	86.1	7.1	48.3	1L	9.26			9.27	
830681	ARBEE/JACMAR		CLUB	54.0	69.1	0.36	86.0	7.3	48.0	1L	9.34			9.36	
830682	ARBEE/TYEE		CLUB	54.8	70.0	0.34	88.8	7.1	48.1	1L	9.32			9.33	
830683	JACMAR	WA6585	CLUB	53.0	71.1	0.35	89.5	7.1	47.2	1L	9.57			9.58	
830684	JACMAR/TYEE		CLUB	55.0	71.4	0.34	90.0	7.1	48.7	1L	9.44			9.44	
830685	TYEE	CI017773	CLUB	57.2	73.2	0.34	92.3	6.8	49.5	1L	9.20			9.19	
830686	STEPHENS/DAWS/LEWJAIN		SWW	59.0	69.7	0.34	88.3	7.1	51.2	2L	9.12			9.14	
830687	STEPHENS/LEWJAIN/TYEE		SWW	57.2	71.3	0.34	90.5	7.1	50.2	2L	9.34			9.35	
830688	ARBEE/JACMAR/TYEE		SWW	55.2	70.2	0.35	88.2	7.0	48.8	1L	9.57			9.57	
830689	HILL 81/LEWJAIN/WA6910		SWW	59.0	70.6	0.37	87.7	7.5	50.1	3L	9.59			9.64	
830690	LEWJAIN/WA6910/WA6912		SWW	59.4	68.0	0.34	86.2	7.2	49.6	2L	9.24			9.26	

COMMENTS: No statistical analysis were conducted, but the following general observations are submitted: The lower flour yield of WA6910, WA6912, and Barbee are reflected when they constitute a portion of the blend. Similarly, the large CODI of Jacmar and the smaller CODI of Daws are reflected when they are in the blend. All are acceptable in baking quality. The milling quality of WA69108 and WA6912 is very questionable.



NURSCO 19

HV, SD, MC, BZ, CN, MONT.

MCNEAL &amp; TAYLOR

LABNUM	VARIETY	IDNO	CLASS	FASH 1/	FPROT 1/	FABSC	FPEAK	FSTAB	MABSC 3/	MTYPE
830691		HV151	HRS	0.40	12.8	66.6	8.5	10.2	62.9	4H
830692		HV152	HRS	0.40	13.4	69.4	13.7	10.0	62.9	4H
830693		HV153	HRS	0.42	10.8	66.4	9.6	12.0	61.1	6M
830694		HV154	HRS	0.38	11.9	71.8	6.7	6.6	63.0	4H
830695		SD155	HRS	0.49	14.9	68.2	8.9	10.8	62.2	3H
830696		SD156	HRS	0.48	14.4	65.2	17.9	21.4	63.8	5H
830697		SD157	HRS	0.48	14.5	68.4	14.2	24.2	63.3	5H
830698		SD158	HRS	0.50	13.2	67.9	14.9	20.5	64.1	5H
830699		SD159	HRS	0.44	13.6	69.0	9.4	13.1	62.8	4H
830700		MC160	HRS	0.46	14.7	65.4	9.2	10.5	62.3	3H
830701		MC161	HRS	0.42	14.3	62.8	10.0	16.9	62.3	4H
830702		MC162	HRS	0.40	15.0	66.6	15.4	17.4	63.7	5H
830703		MC163	HRS	0.42	13.1	65.3	18.4	20.5	61.1	5H
830704		MC164	HRS	0.43	14.0	69.8	9.4	10.7	63.7	5H
830705		BZ230	HRW	0.44	13.3	65.1	4.9	6.5	59.9	2H
830706		BZ233	HRW	0.42	11.2	65.4	1.5	5.6	61.1	6M
830707		BZ234	HRW	0.39	13.8	64.3	4.8	4.2	60.1	2H
830708		BZ235	HRW	0.37	12.9	67.5	4.4	3.8	61.3	2H
830709		HV236	HRW	0.39	12.7	66.0	4.6	7.4	59.4	4H
830710		HV239	HRW	0.38	11.4	65.7	2.8	8.0	61.4	4M
830711		HV240	HRW	0.36	12.2	65.4	5.8	7.7	60.2	3H
830712		HV241	HRW	0.35	12.5	69.0	5.0	5.0	61.2	2H
830713		MC242	HRW	0.36	12.6	66.4	2.2	12.5	62.3	4H
830714		MC246	HRW	0.36	12.9	63.4	9.3	15.7	60.8	5H
830715		MC247	HRW	0.37	12.7	65.5	7.5	7.4	60.9	3H
830716		CN252	HRW	0.42	10.9	64.2	1.7	9.3	61.2	6M
830717		CN253	HRW	0.39	10.9	67.7	4.3	6.3	60.4	4M
830718		HV150	HRW	0.43	13.8	67.0	6.4	6.7	61.3	2H
830719		CN251	HRW	0.39	10.1	69.7	1.4	1.8	63.2	6M
830720		CN248	HRW	0.38	11.2	67.9	1.5	9.4	63.0	6M
830721		MC245	HRW	0.36	11.3	67.6	1.5	7.7	62.9	6M





NURSCO 19

HV, SD, MC, BZ, CN, MONT.

MCNEAL & TAYLOR

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
830691	CHECK SAMPLE .....	HV151	HRS	65.9	66.1	3.6	1025	1037	2	B-Protein
830692		HV152	HRS	66.5	66.1	4.0	1005	980	2	G-Baking & milling
830693		HV153	HRS	62.1	64.3	4.5	1010	1146	2	L-Pro., G-Baking
830694		HV154	HRS	65.1	66.2	3.3	955	1023	4	Q-BCRGR
830695		SD155	HRS	66.8	64.9	2.8	1100	982	2	
830696	CHECK SAMPLE .....	SD156	HRS	67.4	66.0	4.2	1165	1078	2	G-Baking
830697		SD157	HRS	69.0	67.5	4.6	1185	1092	2	G-Baking
830698		SD158	HRS	68.0	67.8	4.9	1223	1211	2	L-Pro., G-LVOL
830699		SD159	HRS	66.6	66.0	3.7	1033	996	2	L-Pro., VG-LVOL
830700		MC160	HRS	69.2	67.5	3.7	1018	913	2	
830701	CHECK SAMPLE .....	MC161	HRS	66.8	65.5	3.8	1068	987	2	G-Overall quality
830702		MC162	HRS	70.4	68.4	4.8	1045	921	2	G-Overall quality
830703		MC163	HRS	66.9	66.8	5.7	1128	1122	2	L-Pro.&FYELD,G-Baking
830704		MC164	HRS	68.9	67.9	3.6	1020	958	3	G-Bake,L-Pro,P-FYELD
830705		BZ230	HRW	63.4	63.1	2.3	1030	1011	1	
830706	CHECK SAMPLE .....	BZ233	HRW	61.5	63.3	2.8	910	1022	6	L-Pro.&P-BCRGR
830707		BZ234	HRW	63.1	62.3	2.0	1055	1005	2	Weak dough properties
830708		BZ235	HRW	63.4	63.5	2.0	1000	1006	3	Weak dough properties
830709		HV236	HRW	62.3	62.6	3.2	985	1004	4	
830710		HV239	HRW	62.5	64.1	3.1	905	1004	5	P-BCRGR
830711	CHECK SAMPLE .....	HV240	HRW	61.6	62.4	2.7	1065	1115	1	E-BCRGR&LVOL
830712		HV241	HRW	62.9	63.4	2.5	920	951	4	P-FYELD Weak dough
830713		MC242	HRW	65.1	65.5	3.4	950	975	4	
830714		MC246	HRW	62.9	63.0	3.8	980	986	3	G-FYELD G-BAKING PROP.
830715		MC247	HRW	62.8	63.1	2.8	935	954	3	G-Overall properties
830716	CHECK SAMPLE .....	CN252	HRW	61.3	63.4	3.4	900	1030	6	Similar to check
830717		CN253	HRW	61.5	63.6	3.3	775	905	8	P-BCRGR L-LVOL
830718		HV150	HRW	64.3	63.5	2.5	945	895	6	P-BCRGR
830719		CN251	HRW	62.5	65.4	3.6	640	820	9	P-LVOL&BCRGR
830720		CN248	HRW	63.4	65.2	3.1	855	967	7	
830721		MC245	HRW	63.4	65.1	3.6	800	905	7	P-LVOL&BCRGR

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 13% Protein.

4/ Observed Values Corrected to 13% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

B = Better; G = Good; L = Low; Q = Questionable; P = Poor; E = Excellent



NURSCO 20

WA, OR, ID

LABNUM	VARIETY	IDNO	CLASS	TWT	WMIST	WPROT	F.N.	A.A.	FYELD	FABS	FPEAK	FSTAB
830722	AREA 1 SWW (NORTH IDAHO)		SWW	61.7	9.7	8.6	327	.081	71.9	54.1	1.2	1.9
830723	AREA 2 SWW (SOUTH IDAHO)		SWW	60.8	9.2	9.6	318	.065	70.7	53.7	1.6	2.1
830724	AREA 2 HRW (SOUTH IDAHO)		HRW	62.0	9.3	10.2	314	.085	69.3	60.8	4.0	8.5
830725	AREA 2 HRS (SOUTH IDAHO)		HRS	61.8	9.3	11.4	360	.058	71.3	63.1	6.6	6.3
830726	AREA 3 SWW (PALOUSE)		SWW	62.1	9.3	8.9	288	.075	72.4	53.6	1.1	1.6
830727	AREA 4 SWW (BIG BEND)		SWW	61.8	9.4	9.1	264	.083	71.6	53.5	1.8	2.5
830728	AREA 4 CLUB (BIG BEND)		CLUB	60.2	9.3	8.3	217	.142	73.8	50.7	1.3	1.1
830729	AREA 4 HRW (BIG BEND)		HRW	63.7	9.4	9.5	290	.079	69.6	59.2	8.1	12.6
830730	AREA 4 HRS (BIG BEND)		HRS	63.5	9.4	11.4	192	.269	70.0	63.1	7.0	10.7
830731	AREA 5 SWW (WALLA WALLA)		SWW	61.7	9.1	8.9	244	.119	71.3	53.5	1.4	1.4
830732	AREA 6 SWW (NORTH PENDLETON)		SWW	61.3	9.6	8.8	298	.085	72.3	53.2	1.0	1.5
830733	AREA 7 SWW (COLUMBIA RIVER)		SWW	61.2	9.5	8.2	302	.076	70.9	51.7	1.0	1.0
830734	AREA 7 CLUB (COLUMBIA RIVER)		CLUB	60.8	9.6	7.1	225	.116	71.8	51.5	1.0	1.0
830735	AREA 8 SWW (WILLAMETTE VALLEY)		SWW	59.3	9.8	8.8	309	.088	68.8	53.5	1.3	1.2
830736	AREA 9 SWW (WATERVILLE)		SWW	62.6	9.4	7.4	277	.061	68.0	52.6	1.0	1.5
830737	AREA 9 CLUB (WATERVILLE)		CLUB	60.9	9.4	7.8	241	.116	73.5	51.2	1.0	1.0
830738	AREA 9 HRW (WATERVILLE)		HRW	64.0	9.6	8.6	273	.094	67.4	60.6	1.0	1.3
830739	AREA 10 SWW (HORSE HEAVEN)		SWW	61.2	9.4	8.4	294	.055	71.2	54.1	1.0	2.3
830740	AREA 10 CLUB (HORSE HEAVEN)		CLUB	61.9	9.4	8.5	316	.066	72.5	51.6	1.0	1.0
830741	AREA 10 HRW (HORSE HEAVEN)		HRW	62.8	9.7	10.8	321	.063	70.1	58.0	9.7	12.5
830742	AREA 10 HRS (HORSE HEAVEN)		HRS	62.9	9.4	13.3	407	.048	68.2	66.3	4.7	5.9
830743	AREA 11 SWW (BLUE MOUNTAIN)		SWW	61.1	9.1	9.0	352	.053	70.5	56.0	1.5	1.6



NURSCO 20

WA, OR, ID

LABNUM	VARIETY	IDNO	CLASS	FASH	FPROT	CODI	CAVOL	SCSOR	WTIN	NOSCO	LVOL	BCRGR
830722	AREA 1 SWW (NORTH IDAHO)		SWW	0.38	7.4	8.92	1320	77.0	366	73		
830723	AREA 2 SWW (SOUTH IDAHO)		SWW	0.39	7.9	8.99	1400	83.0	379	76		
830724	AREA 2 HRW (SOUTH IDAHO)		HRW	0.38	9.3						840	4
830725	AREA 2 HRS (SOUTH IDAHO)		HRS	0.43	10.6						950	2
830726	AREA 3 SWW (PALOUSE)		SWW	0.38	6.8	8.83	1265	72.0	362	77		
830727	AREA 4 SWW (BIG BEND)		SWW	0.39	7.6	8.92	1305	74.0	367	78		
830728	AREA 4 CLUB (BIG BEND)		CLUB	0.36	6.6	9.08	1350	77.0	359	79		
830729	AREA 4 HRW (BIG BEND)		HRW	0.37	8.8							
830730	AREA 4 HRS (BIG BEND)		HRS	0.42	10.7						835	2
830731	AREA 5 SWW (WALLA WALLA)		SWW	0.36	7.6	8.71	1235	70.0	362	76	940	3
830732	AREA 6 SWW (NORTH PENDLETON)		SWW	0.38	7.6	8.90	1245	72.0	351	73		
830733	AREA 7 SWW (COLUMBIA RIVER)		SWW	0.36	7.1	9.19	1250	72.0	351	75		
830734	AREA 7 CLUB (COLUMBIA RIVER)		CLUB	0.38	5.8	9.43	1325	78.0	334	74		
830735	AREA 8 SWW (WILLAMETTE VALLEY)		SWW	0.39	7.6	9.12	1185	67.0	353	75		
830736	AREA 9 SWW (WATERVILLE)		SWW	0.34	6.4	9.07	1155	64.0	349	76		
830737	AREA 9 CLUB (WATERVILLE)		CLUB	0.36	6.6	9.41	1270	70.0	363	77		
830738	AREA 9 HRW (WATERVILLE)		HRW	0.38	7.7						640	8
830739	AREA 10 SWW (HORSE HEAVEN)		SWW	0.39	7.1	8.67	1150	61.0	377	79		
830740	AREA 10 CLUB (HORSE HEAVEN)		CLUB	0.38	7.3	9.22	1315	74.0	378	79		
830741	AREA 10 HRW (HORSE HEAVEN)		HRW	0.38	10.0						910	2
830742	AREA 10 HRS (HORSE HEAVEN)		HRS	0.45	11.9							
830743	AREA 11 SWW (BLUE MOUNTAIN)		SWW	0.38	7.6	8.61	1320	68.0	374	75	975	2





NURSCO 21

CULDESAC, ID

W. MCPROUD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC	RMKS
					1/		1/	3/			4/	
830744	STEPHENS	C1017596	SWW	61.6	73.5	90.2	8.9	53.9	2L	9.24	9.23	
830745	DAWS	C1017419	SWW	62.4	71.9	89.8	8.8	53.7	3L	8.79	8.77	
830746	NUGAINES	C1013968	SWW	63.2	71.2	88.0	8.4	53.6	2M	9.02	8.95	
830747		6/ 79-WW-57A	SWW	62.0	71.8	88.3	8.1	53.0	2L	9.15	9.05	
830748		79-WW-96A	HWW	62.4	71.9	89.1	8.7	54.8	3L	8.76	8.73	Hard texture
830749		79-WW-130A	HWW	62.8	72.3	87.8	8.8	53.5	3L	8.89	8.87	Hard texture
830750		79-WW-130B	HWW	62.4	72.5	88.6	8.9	53.0	3L	9.00	8.99	Hard texture
830751		79-WW-176B	HWW	61.2	74.1	88.7	10.5	52.3	3M	8.21	8.38	Hard texture
830752		5/ 80-WW-1	SWW	62.0	73.2	91.6	9.4	53.2	1M	9.19	9.23	
830753		80-WW-3	HWW	62.8	72.4	89.4	9.2	52.7	3L	8.91	8.93	Hard texture
830754		80-WW-5	HWW	62.0	72.6	88.0	9.3	51.5	2L	8.85	8.88	Hard texture
830755		6/ 80-WW-6	SWW	61.6	71.3	85.6	8.2	52.6	2M	9.31	9.22	
830756		80-WW-9	SWW	62.0	70.8	84.9	8.9	53.4	2M	8.86	8.85	Q-FYELD
830757		6/ 80-WW-23	SWW	62.4	72.7	86.6	8.7	51.9	3L	9.02	8.99	

1/ Observed Values Corrected to 14% Moisture Basis.

5/ Particularly Promising Overall quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 9% Protein.

## COMMENTS:

Several of these selections were hard in texture (See class column) and are therefore questionable for soft wheat quality. However, since this characteristic was not expressed in cookie diameter they may warrant further testing. Those that have good overall quality are noted with footnotes.

Q = Questionable



NURSCO 22

MOSES LAKE, WA

D. WALKER

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
830758 STEPHENS		CI017596	SWW	59.9	72.5	0.41	84.3	7.3	52.3	2L
830759 DAWS		CI017419	SWW	61.2	69.5	0.43	78.9	8.3	52.1	3L
830760 EXP. 88			6/SWW	60.5	69.2	0.44	76.9	6.9	51.2	1L
830761 EXP. 89			SWW	59.9	67.0	0.44	72.9	7.0	50.9	1L

1/ Observed Values Corrected to 14% Moisture Basis.

5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 8% Protein.

LABNUM	VARIETY	IDNO	CLASS	CODI	CODIC 4/	CAVOL	SCSOR	WTIN	NOSCO	RMKS
830758 STEPHENS		CI017596	SWW	8.71	8.64	1245	73.0	357	77	
830759 DAWS		CI017419	SWW	8.54	8.57	1200	68.0	372	78	
830760 EXP. 88			SWW	8.89	8.77	1275	72.0	359	73	
830761 EXP. 89			SWW	9.02	8.91	1265	73.0	352	66	Low FYELD

COMMENTS: No. 88 appears to be similar to Daws in most quality factors. No. 89 is poor in milling properties as reflected by low flour yield.



WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA  
NURSCO 22A

CANADIAN SOFT WHITE

PAGE 1

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
830762	CANADIAN SWW		SWW	61.2	69.6	0.42	78.9	8.9	52.0	2M

LABNUM	VARIETY	IDNO	CLASS	CODI	CODIC	CAVOL	SCSOR	WTIN	NOSCO	RMKS
830762	CANADIAN SWW		SWW	8.85	8.95	1405	82.0	388	65	

- 1/ Observed Values Corrected to 14% Moisture Basis. 5/ Particularly Promising Overall Quality  
3/ Absorption at 14% Moisture Corrected to 9% Protein. Characteristics.  
4/ Observed Values Corrected to 9% Protein. 6/ Promising Overall Quality Characteristics.

COMMENTS: Low flour yield and milling score. Very good cookie spread and sponge cake baking properties. Low noodle score due to soft and sticky noodle properties.





NURSCO 23

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
830763	WAMPUM/TIFION 3725 NZ SEL.3	6/HF820005	SRS	60.4	72.8	0.42	87.3	11.4	55.0	3M	63.8
830764	FIELDER//K78504/K74129-19 NZ SEL.9	HF820006	HRS	62.0	70.6	0.37	86.7	10.4	58.2	6M	
830765	K78570/(K74129-19.1D44/WA6021)	6/HF820011	SRS	60.4	72.7	0.37	90.1	10.5	54.0	2M	
830766	FIELDER//K78504/K74129-19 NZ SEL.12	HF820016	HWS	64.0	68.5	0.33	86.5	10.6	56.7	6M	62.5
830767	K74142-10/K78510,TIF2408/URQUIE NZ SEL.7	HF820017	SWS	59.6	68.5	0.39	83.5	10.1	52.8	2M	
830768	K78504/K74129-49 NZ SEL.3	5/HF820028	SWS	61.6	71.5	0.38	87.8	10.1	51.3	1M	
830769	K78504/K74129-33//K780664	6/HF820029	SWS	60.8	69.1	0.37	85.2	10.4	51.0	2M	
830770	FIELDER//K78504/K74129-19 NZ SEL.1	HF820033	HWS	63.2	67.7	0.36	84.5	10.7	55.6	6M	62.5
830771	FIELDER//K78504/K74129-19 NZ SEL.2	HF820034	HWS	63.2	67.6	0.33	86.0	10.6	58.2	7M	66.0
830772	FIELDER//K78504/K74129-19 NZ SEL.3	HF820035	HWS	64.0	65.3	0.32	84.0	10.8	57.5	7M	64.5
830773	FIELDER//K78504/K74129-19 NZ SEL.4	HF820036	HWS	63.6	70.1	0.39	85.5	11.3	56.5	6M	64.0
830774	K78504/K74129-33//K780664	5 NZ SEL.9	SWS	61.6	67.4	0.36	83.8	10.4	51.0	2M	
830775	K78504/K74129-33//K780664	5 NZ SEL.12	SWS	60.4	68.9	0.40	83.4	10.0	51.4	2M	
830776	K78504/K74129-33//K780664	5 NZ SEL.15	SWS	60.8	68.2	0.37	84.5	10.2	51.2	2M	
830777	K78504/K74129-33//K780664	5 NZ SEL.19	SWS	60.4	69.6	0.36	86.5	9.8	50.6	3M	
830778	WAVERLY	C1017911	SWS	60.8	70.6	0.35	89.0	10.1	52.3	2M	
830779	DIRKWIN	C1017745	SWS	58.8	70.7	0.37	87.5	9.5	49.7	1M	
830780	WAMPUM	C1017769	HRS	60.4	71.4	0.34	89.0	10.8	57.2	6M	62.2

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 23

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	LVOL	LVOLC	BCRGR	CODI	CODIC	RMKS
				3/			4/			4/	
830763	WAMPUM/TIFTON 3725 NZ SEL.3	HF820005	SRS	63.4	3.8	875	850	6	9.12	9.28 Soft Red	
830764	FIELDER//K78504/K74129-19 NZ SEL.9	HF820006	HRS						8.42	8.46 P-LVOL&BCRGR	
830765	K78570/(K74129-19.1D44/WA6021)	HF820011	SRS						9.00	9.05 Soft Red	
830766	FIELDER//K78504/K74129-19 NZ SEL.12	HF820016	HWS	61.9	3.8	885	848	6	8.36	8.41 P-LVOL&BCRGR	
830767	K74142-10/K78510, TIF2408/URQUIE NZ SEL.7	HF820017	SWS						8.90	8.91 Q-FYELD	
830768	K78504/K74129-49 NZ SEL.3	HF820028	SWS						9.39	9.40 Q-FYELD	
830769	K78504/K74129-33//K780664 5 NZ SEL.24	HF820029	SWS						9.30	9.34	
830770	FIELDER//K78504/K74129-19 NZ SEL.1	HF820033	HWS	61.8	3.6	930	887	4	8.30	8.36 P-FYELD&BCRGR	
830771	FIELDER//K78504/K74129-19 NZ SEL.2	HF820034	HWS	65.4	3.8	935	898	3	8.37	8.42 Q-FYELD&BCRGR	
830772	FIELDER//K78504/K74129-19 NZ SEL.3	HF820035	HWS	63.7	4.1	945	895	3	8.30	8.36 P-FYELD	
830773	FIELDER//K78504/K74129-19 NZ SEL.4	HF820036	HWS	62.7	3.8	950	869	3	8.71	8.82 P-LVOL&BCRGR	
830774	K78504/K74129-33//K780664 5 NZ SEL.9	HF820053	SWS						9.19	9.23 P-FYELD	
830775	K78504/K74129-33//K780664 5 NZ SEL.12	HF820056	SWS						9.44	9.44 Q-FYELD	
830776	K78504/K74129-33//K780664 5 NZ SEL.15	HF820059	SWS						9.07	9.10 Q-FYELD	
830777	K78504/K74129-33//K780664 5 NZ SEL.19	HF820063	SWS						9.21	9.19	
830778	WAVERLY	C1017911	SWS						9.14	9.15	
830779	DIRKWIN	C1017745	SWS						9.26	9.21	
830780	WAMPUM	C1017769	HRS	61.4	4.6	1030	980	2	8.76	8.83	

COMMENTS: Flour yield seems to be the weakest character of these Hessian Fly selections. Two selections, HF820005 and HF820011 are red seeded soft wheats with good overall pastry wheat properties.

P = Poor; Q = Questionable



NURSCO 24

LIND, ROYAL SLOPE, WA

C. F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	FASH 1/	FYELD	MSCOR	FPROT 1/	MABS	MABSC 3/	MTYPE	BABS	BABSC 3/
830781	WAVERLY	CI017911	SWS	0.40	70.9	82.1	10.1	55.4	55.3	2M	56.6	56.5
830782	WAMPUM	CI017691	HRS	0.44	70.7	82.0	10.7	61.1	60.4	4H	63.3	62.6
830783	CI01472/(CI015926, WARED)	K8005223	SWS	0.38	71.1	82.8	10.4	56.9	56.5	4M	59.1	58.7
830784	K74136/POTAM 70	K8005424	SWS	0.38	71.7	83.6	10.0	56.9	56.9	6M	59.1	59.1
830785	K74182/POTAM 70	6/ K8005604	SWS	0.37	71.1	83.0	10.8	57.2	56.4	6M	59.4	58.6
830786	K74322/POTAM 70	6/ K8005701	SWS	0.41	71.5	82.4	10.0	57.2	57.2	3M	57.9	57.9
830787	K74322/POTAM 70	6/ K8005705	SWS	0.43	72.0	82.1	11.3	56.7	55.4	4M	58.9	57.6
830788	LIFN*2-N1220/POTAM 70512	WA6921	SWS	0.45	69.8	77.6	10.2	54.7	54.5	3M	55.9	55.7

1/ Observed Values Corrected to 14% Moisture Basis.

5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 10% Protein.





NURSCO 24

LIND, ROYAL SLOPE, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	MTIME	LVOL	LVOLC 4/	BCRGR	CODI	CODIC 4/	CAVOL	SCSOR	RMKS
830781	WAVERLY	CI017911	SWS	1.8	895	889	6	8.49	8.50	1285	71.0	
830782	WAMPUM	CI017691	HRS	2.8	985	942	2	8.06	8.12	1195	61.0	
830783	CI01472/(CI015926, WARED)	K8005223	SWS	3.2	925	901	4	8.24	8.28	1280	73.0	P-BCRGR&CODI
830784	K74136/POTAM 70	K8005424	SWS	3.4	965	965	4	8.46	8.46	1260	71.0	P-BCRGR
830785	K74182/POTAM 70	K8005604	SWS	3.4	968	920	2	8.46	8.55	1305	73.0	
830786	K74322/POTAM 70	K8005701	SWS	2.3	908	908	2	8.46	8.46	1290	74.0	
830787	K74322/POTAM 70	K8005705	SWS	2.9	975	897	2	8.36	8.51	1305	71.0	Q-CODI
830788	LIFN*2-N1220/POTAM 70512	WA6921	SWS	1.8	900	888	6	8.60	8.62	1295	72.0	P-MILLING

COMMENTS: Two of these selections (K8005604 & K8005701) appear to have promise in overall dual purpose properties, and a possible third selection (K8005705) is good except for a questionable cookie spread.

P = Poor; Q = Questionable



USDA, SEA AR  
WESTERN WHEAT  
PULLMAN, WA.  
NURSCO 25

PRELIMINARY SOFT WHITE (26,27,28)

C.F. KONZAK

PULLMAN, WA

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD		FASH	MSCOR	FPROT		MABSC	MTYPE	CODI	CODIC		RMKS
					1/	2/			1/	2/				3/	4/	
830789	K76181/(K7500438,C114482/N680221/3/NB68)	K8205088	SWS	59.2	69.4	0.37	85.8	8.8	52.4	2L	9.11	8.98	Q-CODI			
830790	K76181/(K7500438,C114482/N680221/3/NB68)	K8205095	SWS	63.2	69.2	0.37	85.9	10.1	54.0	3M	8.94	8.95	Q-CODI			
830791	K76185/(K7500455,C114482//C113438/MF,68)	K8205279	SWS	58.0	67.9	0.38	83.6	9.8	53.0	2L	9.39	9.37	Low FYELD			
830792	K76185/(K7500455,C114482//C113438/MF,68)	K8205286	SWS	59.2	68.8	0.38	84.2	9.5	53.9	2M	9.31	9.26	Low FYELD			
830793	K76185/(K7500455,C114482//C114482//C113)	K8205297	SWS	60.0	68.5	0.37	84.8	9.6	53.8	2M	9.06	9.02	Low FYELD			
830794	K76185/(K7500455,C114482//C113438/)	K8205298	SWS	59.6	70.2	0.36	87.5	9.3	52.3	5L	9.50	9.42				
830795	K76185/(WA006152,SPRING LUKE MUTANT)	K8205319	SWS	59.6	67.7	0.37	83.6	10.2	52.5	2M	9.20	9.22	Low FYELD			
830796	DIRKWIN	C1017745	SWS	58.4	69.7	0.36	87.2	9.4	50.0	1M	9.31	9.25				
830797	WAVERLY	C1017911	SWS	60.4	69.4	0.34	87.5	10.1	53.0	3M	9.22	9.24				
830798	K76219/(K76185,LIFN*2-N1220/(WA...	K82053576/	SWS	60.0	70.2	0.34	88.7	8.9	52.5	3L	9.42	9.30				
830799	K76249/(K76182,LUKE MUTANT WA00...	K8205492	SWS	59.2	68.1	0.40	82.2	9.4	49.9	5L	8.89	8.82	Low FYELD&CODI			
830800	K76249/(K76182,LUKE MUTANT WA0061...	K8205504	SWS	60.0	70.9	0.34	89.9	9.3	51.8	3M	9.41	9.34				

- 1/ Observed Values Corrected to 14% Moisture Basis.
- 3/ Absorption at 14% Moisture Corrected to 10% Protein.
- 4/ Observed Values Corrected to 10% Protein.
- 5/ Particularly Promising Overall Quality Characteristics.
- 6/ Promising Overall Quality Characteristics.

COMMENTS: Selections K8205088 and K8205095 are border-line in cookie making. See "Remarks" for deficiencies of other selections.

Q = Questionable



NURSCO 26

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYLD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
830801	ID000112/(K7500044, BANK12050/MINTER	6/K8200039	HRS	60.8	72.0	0.36	88.7	9.4	57.3	6L
830802	K7500566/RAGENI 15	K8200082	HRS	61.6	69.4	0.33	87.5	10.2	60.1	7L
830803	K76130/(K7500062, BANK1205//MINTER/B...	6/K8200118	HRS	61.6	72.8	0.33	91.2	10.7	60.0	8M
830804	K76131/(K7400148, K68028-01/(K670146...	6/K8200127	HRS	61.6	69.8	0.35	87.1	11.1	58.6	8M
830805	K76131/(K7500002, BEZ-1/(14X53-01)BU...	6/K8200131	HRS	62.0	69.2	0.28	90.1	11.6	60.4	8M
830806	K76132/(K7500002, BEZ-1/(14X53-101)BURT...	K8200154	HRS	60.8	72.2	0.31	91.8	10.9	58.6	7L
830807	K76186/(K7500062, BANK1205//MINTER/BURT...	K8200202	HRS	62.0	70.4	0.31	89.5	11.2	61.1	6M
830808	K76186/(K7500062, BANK1205//MINTER/BURT...	K8200204	HRS	63.6	68.9	0.33	86.9	11.0	61.2	6M
830809	K76231/MW15	K8200263	HRS	62.8	73.0	0.31	92.5	11.8	58.7	3M
830810	K76237/(K7500044, BANK1205/MINTER/...	K8200278	HRS	60.0	71.3	0.33	89.7	9.7	57.2	4L
830811	K76237/(WA006108, WA5243/3/C3845/H7-...	K8200286	HRS	61.2	71.2	0.42	85.0	10.3	60.5	8M
830812	K76243/PITIC 62	K8200295	HRS	60.0	69.6	0.32	88.2	9.7	57.8	4L
830813	K76243/PITIC 62	K8200296	HRS	58.4	70.9	0.40	85.6	9.5	59.4	4M
830814	K76243/(WA6108, WA5243/3/C3845/H7-5...	5/K8200308	HRS	61.6	73.7	0.30	93.5	11.8	61.4	4M
830815	K76243/(WA6108, WA5243/3/C3845/H7-5...	6/K8200311	HRS	61.2	71.6	0.34	89.3	11.3	60.7	3M
830816	K76243/(WA6108, WA5243/3/C3845/H7-5...	6/K8200315	HRS	61.6	71.6	0.32	90.5	11.7	60.2	4M
830817	K76243/(WA6108, WA5243/3/C3845/H7-536...	6/K8200317	HRS	62.0	71.6	0.34	89.5	12.1	61.6	5H
830818	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200321	HRS	59.6	72.5	0.32	91.3	11.6	60.9	4H
830819	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200330	HRS	61.6	73.6	0.37	90.0	11.8	60.6	4H
830820	K76243/(WA6108, WA5243/3/C3845/H7-536...	5/K8200333	HRS	62.0	71.1	0.36	88.0	11.0	61.0	8M
830821	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200342	HRS	62.0	71.8	0.36	88.4	9.8	60.7	6M
830822	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200346	HRS	61.6	74.2	0.32	93.4	11.8	59.6	8M
830823	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200348	HRS	59.6	70.5	0.37	86.8	10.9	62.0	6H
830824	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200350	HRS	61.2	72.2	0.36	89.1	12.0	59.5	8M
830825	MCKAY	C1017903	HRS	62.0	71.0	0.30	91.0	10.7	59.1	8M
830826	WAMPUM	C1017691	HRS	60.0	70.5	0.35	87.7	10.4	58.9	6M
830827	K76245/(K76209, RAGENT 15/(WA6108, WA5243...	K8200372	HRS	60.8	70.1	0.35	87.4	10.0	58.5	8L
830828	K76245/(WA6108, WA5243/3/C3845/H7-536...	K8200388	HRS	59.2	70.8	0.36	87.4	9.8	58.5	3M
830829	K76245/(WA6108, WA5243/3/C3845/H7-536...	6/K8200397	HRS	62.0	72.2	0.32	91.1	10.5	59.3	3M
830830	K76245/(WA6108, WA5243/3/C3845/H7-536...	K8200412	HRS	60.4	70.3	0.33	88.6	9.5	57.5	3M
830831	K76267/(K75000459, C114482/C113438/MF...	6/K8200416	HRS	59.6	70.6	0.36	87.5	10.7	59.9	8M
830832	K76297/(WA6108, WA5243/3/C3845/H7-53...	K8200462	HRS	60.0	70.5	0.36	87.5	9.3	57.5	4L
830833	W/S75393/(K7500002, BEZ-1/(14X53-101)B...	K8200499	HRS	62.0	72.5	0.31	92.1	9.8	60.1	4M
830834	W/S75393/(K7500002, BEZ-1/(14X53-101)B...	K8200510	HRS	62.4	71.0	0.31	90.5	10.3	61.2	6L
830835	MCKAY	C1017903	HRS	62.0	69.2	0.29	89.7	10.4	58.9	8M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 26

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
830801	ID000112/(K7500044, BANK12050/MINTER	K8200039	HRS	59.4	61.0	6.0	900	999	2	3 Q-LVOL&BCRGR
830802	K7500566/RAGEN1 15	K8200082	HRS	62.5	63.3	5.4	890	940	3	Q-LVOL
830803	K76130/(K7500062, BANK1205//MINTER/B...	K8200118	HRS	62.9	63.2	5.9	935	954	2	Q-LVOL
830804	K76131/(K7400148, K68028-01/(K670146...	K8200127	HRS	61.9	61.8	4.2	985	979	2	
830805	K76131/(K7500002, BEZ-1/(14X53-01)BU...	K8200131	HRS	66.2	65.6	5.8	1025	988	2	
830806	K76132/(K7500002, BEZ-1/(14X53-101)BURT...	K8200154	HRS	60.7	60.8	4.3	940	946	4	P-BCRGR
830807	K76186/(K7500062, BANK1205//MINTER/BURT...	K8200202	HRS	66.0	65.8	4.4	953	941	3	Q-LVOL&BCRGR
830808	K76186/(K7500062, BANK1205//MINTER/BURT...	K8200204	HRS	63.9	63.9	3.3	975	975	5	P-BCRGR
830809	K76231/W15	K8200263	HRS	62.2	61.4	2.3	950	900	3	P-LVOL&BCRGR
830810	K76237/(K7500044, BANK1205/MINTER/...	K8200278	HRS	58.6	59.9	3.4	835	916	8	P-LVOL&BCRGR
830811	K76237/(WA006108, WA5243/3/C3845/H7-...	K8200286	HRS	63.0	63.7	5.4	970	1013	4	P-LVOL&BCRGR
830812	K76243/PITIC 62	K8200295	HRS	58.7	60.0	3.0	850	931	8	P-LVOL&BCRGR
830813	K76243/PITIC 62	K8200296	HRS	60.1	61.6	3.7	875	968	4	P-LVOL&BCRGR
830814	K76243/(WA6108, WA5243/3/C3845/H7-5...	K8200308	HRS	65.4	64.6	4.6	1015	965	1	
830815	K76243/(WA6108, WA5243/3/C3845/H7-5...	K8200311	HRS	63.2	62.9	2.4	965	946	1	
830816	K76243/(WA6108, WA5243/3/C3845/H7-5...	K8200315	HRS	63.1	62.4	2.6	1005	962	2	Q-PROT./VOL.
830817	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200317	HRS	67.9	66.8	5.3	963	895	2	Q-PROT./VOL.
830818	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200321	HRS	65.7	65.1	4.5	930	893	2	Q-PROT./VOL.
830819	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200330	HRS	65.6	64.8	4.4	955	905	2	Q-PROT./VOL.
830820	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200333	HRS	65.7	65.7	5.2	1000	1000	2	
830821	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200342	HRS	63.7	64.9	4.3	900	974	6	P-BCRGR
830822	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200346	HRS	64.6	63.8	5.8	945	895	2	P-LVOL
830823	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200348	HRS	68.1	68.2	6.1	930	936	4	P-BCRGR
830824	K76243/(WA6108, WA5243/3/C3845/H7-536...	K8200350	HRS	64.7	63.7	5.5	995	933	4	P-BCRGR
830825	MCKAY	C1017903	HRS	63.0	63.3	4.9	980	999	2	
830826	WAMPUM	C1017691	HRS	62.5	63.1	4.4	1005	1042	2	
830827	K76245/(K76209, RAGENT 15/(WA6108, WA5243...	K8200372	HRS	61.7	62.7	5.2	900	962	5	P-BCRGR
830828	K76245/(WA6108, WA5243/3/C3845/H7-536...	K8200388	HRS	59.5	60.7	2.8	890	964	5	P-BCRGR
830829	K76245/(WA6108, WA5243/3/C3845/H7-536...	K82003976/	HRS	61.0	61.5	2.7	955	986	3	
830830	K76245/(WA6108, WA5243/3/C3845/H7-536...	K8200412	HRS	58.2	59.7	2.6	900	993	4	P-BCRGR
830831	K76267/(K7500459, C114482/C113438/MF...	K8200416 6/	HRS	64.3	64.6	6.0	955	974	2	P-LVOL&BCRGR
830832	K76297/(WA6108, WA5243/3/C3845/H7-53...	K8200462	HRS	60.0	61.7	3.6	875	980	7	P-LVOL&BCRGR
830833	W/S75393/(K7500002, BEZ-1(14X53-101)B...	K8200499	HRS	62.6	63.8	3.5	750	824	7	P-LVOL&BCRGR
830834	W/S75393/(K7500002, BEZ-1(14X53-101)B...	K8200510	HRS	64.7	65.4	3.8	875	918	3	P-LVOL&BCRGR
830835	MCKAY	C1017903	HRS	62.5	63.1	5.0	1055	1092	2	





NURSCO 26

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
830836	WAMPUM									
830837	W/S75343/(K750002, BEZ-1(14X53-101)BU...	C1017691	HRS	60.0	70.1	0.33	88.2	10.3	61.1	6M
830838	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200534	HRS	62.4	70.7	0.28	91.4	11.2	62.0	3M
830839	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200543	HRS	62.0	71.0	0.28	91.7	11.1	59.7	4M
830840	W/S75343/(K750002, BEZ-1(14X53-101)BU...	6/K8200545	HRS	62.0	73.3	0.28	94.1	10.8	61.6	6M
		K8200550	HRS	60.4	71.7	0.32	90.4	10.0	59.0	3M
830841	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200553	HRS	60.8	71.5	0.30	91.2	10.1	61.9	5H
830842	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200558	HRS	61.2	71.6	0.30	91.5	10.3	59.4	6L
830843	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200569	HRS	60.8	69.7	0.32	88.7	10.2	60.1	6L
830844	W/S75343/(K750002, BEZ-1(14X53-101)BU...	6/K8200578	HRS	61.6	70.8	0.32	89.8	10.8	60.0	4M
830845	W/S75343/(K750002, BEZ-1(14X53-101)BU...	6/K8200588	HRS	61.2	70.3	0.33	88.5	10.6	61.7	6M
830846	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200595	HRS	62.8	72.0	0.27	93.4	10.7	59.0	4M
830847	W/S75343/(K750002, BEZ-1(14X53-101)BU...	6/K8200596	HRS	62.8	71.1	0.27	92.4	11.6	60.6	3M
830848	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200598	HRS	62.0	71.2	0.29	91.7	10.5	60.8	6L
830849	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200599	HRS	61.6	70.4	0.31	89.7	10.6	61.0	4M
830850	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200601	HRS	58.0	72.0	0.32	90.8	10.0	59.3	8L
830851	WAMPUM	C1017691	HRS	61.6	70.8	0.34	88.7	10.1	61.5	6M



NURSCO 26

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
830836	WAMPUM									
830837	W/S75343/(K750002, BEZ-1(14X53-101)BU...	C1017691	HRS	64.6	65.3	3.7	1045	1088	2	6P-LVOL&BCRGR
830838	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200534	HRS	64.9	64.7	3.1	835	823	3	9P-LVOL&BCRGR
830839	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200543	HRS	64.0	63.9	3.8	780	774	3	3Q-BCRGR
830840	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200545	HRS	67.1	67.3	4.5	935	947	3	8P-LVOL&BCRGR
830841	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200550	HRS	63.2	64.2	3.1	825	887	3	6P-LVOL&BCRGR
830842	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200553	HRS	65.2	66.1	3.4	870	926	3	8P-LVOL&BCRGR
830843	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200558	HRS	61.9	62.6	4.2	775	818	3	5P-LVOL&BCRGR
830844	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200569	HRS	63.5	64.3	4.8	900	950	3	3Q-BCRGR
830845	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200578	HRS	65.5	65.7	3.5	933	945	3	6P-LVOL&BCRGR
830846	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200588	HRS	67.0	67.4	3.6	943	968	3	5P-LVOL&BCRGR
830847	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200595	HRS	63.9	64.2	3.6	820	839	3	4P-LVOL&BCRGR
830848	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200596	HRS	64.9	64.3	2.3	993	956	3	7P-LVOL&BCRGR
830849	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200598	HRS	65.5	66.0	4.2	830	861	3	5P-LVOL&BCRGR
830850	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200599	HRS	66.8	67.2	3.6	890	915	3	4P-LVOL&BCRGR
830851	W/S75343/(K750002, BEZ-1(14X53-101)BU...	K8200601	HRS	63.5	64.5	5.5	870	932	3	4P-LVOL&BCRGR
830851	WAMPUM	C1017691	HRS	62.8	63.7	4.8	1030	1086	2	

COMMENTS: The selections footnoted have some promise. All were excellent milling, but none appear to have the loaf volume performance of Wampum.

P = Poor; Q = Questionable



NURSCO 27

PULLMAN, WA

C. F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC	RMKS
					1/	1/		1/	3/			4/	
830852	POTAM 70/(WA006021, BRONS)	6/ K8005027	SWS	61.3	70.1	0.37	86.9	10.0	55.2	1M	9.12	9.12	
830853	K74129/POTAM 70	K8005300	SWS	61.6	68.6	0.35	86.1	9.8	52.1	4L	9.09	9.07	L-FYELD
830854	K74129/POTAM 70	5/ K8005317	SWS	61.8	69.4	0.33	88.6	10.9	50.8	2M	9.30	9.40	
830855	K74129/POTAM 70	6/ K8005339	SWS	61.7	70.7	0.37	87.3	9.7	53.1	3L	9.32	9.29	
830856	L1FN*2-N1220/(WA6150)	6/ K7905566	SWS	58.6	69.5	0.44	81.6	10.5	53.7	2M	9.11	9.17	
830857	L1FN*2-N1220/(WA6150)	K7905605	SWS	58.2	66.9	0.43	78.7	10.7	53.7	3M	9.25	9.33	L-FYELD
830858	L1FN*2-N1220/(WA6151)	5/ K7905631	SWS	61.1	71.6	0.35	89.7	9.7	53.1	3L	9.17	9.14	
830859	K74549/POTAM 70	K8005965	SWS	60.1	69.2	0.37	85.7	9.4	54.3	7M	8.92	8.86	L-CODI
830860	K74555/POTAM 70	K8006008	SWS	60.3	67.5	0.36	84.3	10.0	52.8	3M	9.15	9.15	L-FYELD
830861	L1FN*2-N1220/(WA6150)	K8006577	SWS	58.5	68.2	0.46	78.7	10.6	53.5	3M	9.14	9.20	L-FYELD
830862	L1FN*2-N1220/WA6150	K8006579	SWS	58.5	68.4	0.46	79.1	10.6	54.0	2M	9.05	9.12	L-FYELD
830863	DIRKWIN	C1017745	SWS	58.0	70.5	0.42	84.3	9.4	50.0	1M	9.34	9.27	
830864	WAVERLY	C1017911	SWS	58.8	69.7	0.37	86.2	10.4	52.3	2M	9.25	9.29	
830865	K76152 K7400313/POTAM 70	K8105522	SWS	58.2	67.8	0.37	83.7	9.3	53.2	6L	8.94	8.86	L-FYELD&CODI
830866	K76152 K7400313/POTAM 70	5/ K8105552	SWS	60.7	70.4	0.34	89.1	9.8	52.0	2M	9.54	9.52	
830867	K76165 K7400317/POTAM 70	K8105569	SWS	58.5	67.3	0.34	85.1	9.9	53.9	3M	9.21	9.20	L-FYELD
830868	K76181 L1FN*2/N1220	5/ K8105626	SWS	61.1	70.4	0.38	86.5	10.0	52.7	3M	9.46	9.46	
830869	K76157 K7400315/POTAM 70	K8105773	SWS	60.4	67.2	0.34	84.8	10.1	53.0	3M	9.16	9.17	L-FYELD
830870	K76157 K7400315/POTAM 70	K8105787	SWS	57.2	68.0	0.41	81.7	9.8	52.3	3L	9.26	9.24	L-FYELD
830871	K76157 K7400315/POTAM 70	6/ K8105790	SWS	57.4	69.1	0.36	86.0	10.2	52.3	2M	9.37	9.40	
830872	K76157 K7400315/POTAM 70	K8105794	SWS	58.3	68.2	0.37	84.4	9.3	53.1	2M	9.40	9.32	L-FYELD
830873	K76157 K7400315/POTAM 70	K8105822	SWS	58.2	68.3	0.41	82.1	10.0	51.7	3M	9.26	9.26	L-FYELD
830874	DIRKWIN	C1017745	SWS	58.7	69.6	0.37	86.0	9.1	51.3	1M	9.19	9.09	
830875	WAVERLY	C1017911	SWS	59.1	69.4	0.35	86.9	10.2	52.6	3M	9.10	9.12	
830876	K76157 K7400315/POTAM 70	K8105870	SWS	57.5	67.4	0.37	83.6	10.7	52.4	2M	9.27	9.35	L-FYELD
830877	K76157 K7400315/POTAM 70S	K8105887	SWS	59.0	66.9	0.36	83.1	10.9	51.2	2M	9.22	9.32	L-FYELD
830878	K76157 K7400315/POTAM 70S146	K8105891	SWS	56.8	67.3	0.38	82.5	9.7	52.2	3L	9.21	9.18	L-FYELD
830879	K76217 U1L23-AL66/C01266-S1	K8105937	SWS	59.4	67.3	0.34	85.4	10.2	53.1	7M	9.16	9.18	L-FYELD
830880	K79299-5	HF920050	SWS	60.7	68.3	0.39	83.2	9.3	51.3	2M	9.29	9.21	L-FYELD
830881	K79299-20	HF820064	SWS	60.1	64.9	0.34	81.8	9.8	52.5	3M	8.92	8.90	VP-FYELD
830882	K79299-22	HF820066	SWS	60.1	62.4	0.32	80.3	9.7	53.1	2M	8.90	8.87	VP-FYELD

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: Several of these selections were 1-2% lower in flour yield than the Dirkwin and Waverly checks, which are not strong milling wheats. All but K8005965 and K8105522 have good pastry properties.

L = Low; VP = Very Poor





NURSCO 28

LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
830883	CCP/3/OMAR/IT//13438/HN7(ADV. I)	N8200101	HRW	62.7	72.0	0.37	88.1	10.8	62.4	4H
830884	N6754/SM7437/CERCO//N72	<u>6/</u> N8200502	HRW	62.8	71.8	0.36	88.3	11.7	63.1	3H
830885	N6754/SM7437/CERCO//WA59	N8200602	HRW	62.4	72.7	0.35	90.2	13.0	63.5	2H
830886	CLE//SM7437/N6754/3/N732	N8200701	HRW	62.3	72.0	0.37	88.4	11.7	62.0	3H
830887	HTN SIB//SHORT WHEAT/SVT	N8200912	HRW	62.6	72.3	0.36	89.2	11.1	63.1	3H
830888	HTN SIB//SHORT WHEAT/SVT	<u>6/</u> N8200914	HRW	62.8	72.6	0.35	89.9	11.7	64.5	3H
830889	HTN SIB//SHORT WHEAT SVT	N8200921	HRW	63.2	72.6	0.34	90.4	11.1	64.4	2H
830890	HATTON	C1017772	HRW	63.2	71.1	0.38	86.9	12.3	63.9	3H
830891	N700194/9342/101/TP/SPRA(ADV. II)	N8201801	HRW	62.4	72.2	0.37	88.7	12.3	62.4	2H
830892	N700194/9342/100/TP/SPRA	N8201802	HRW	63.1	71.9	0.36	88.4	11.4	63.7	4H
830893	WA5514/IT//CER	<u>6/</u> N8201903	HRW	63.1	70.7	0.36	87.1	12.3	63.5	4H
830894	WA5514/IT//CER	<u>6/</u> N8201905	HRW	62.8	71.3	0.37	87.7	12.4	63.8	2H
830895	WA5514/IT//CER	<u>5/</u> N8201908	HRW	63.2	72.0	0.36	88.6	12.1	62.7	3H
830896	KAVKAZ/PAHA	<u>6/</u> N8202302	HRW	62.4	71.3	0.37	87.3	11.9	63.7	3H
830897	167822/101//LUKE/3/WA700	N8202401	HRW	63.2	74.3	0.37	90.4	10.7	61.1	2H
830898	167822/101//LUKE/3/WA700	N8202403	HRW	62.7	72.6	0.39	87.6	10.8	61.9	3H
830899	HATTON	C1017772	HRW	63.5	70.6	0.38	86.3	12.3	64.0	3H
830900	N6754/SM7437//CERCO//N72(ADV. III)	N8200503	HRW	62.8	71.4	0.37	87.4	11.6	63.7	3H
830901	N6754/SM7437//CERCO//WA59	N8200604	HRW	62.4	71.4	0.36	88.0	11.6	62.6	3H
830902	HTN SIB//SHORT WHEAT/SVT	N8200931	HRW	63.0	73.5	0.35	90.7	9.8	61.4	3H
830903	HTN SIB//SHORT WHEAT/SVT	N8200932	HRW	63.3	73.6	0.33	91.9	10.1	62.2	2H
830904	N7200043/CENTURK	N8201514	HRW	63.5	73.2	0.36	90.1	11.7	63.8	4H
830905	N7200043/CENTURK	N8201518	HRW	63.6	74.0	0.38	89.8	12.0	63.0	2H
830906	TP107/N6754/SM7437/N7134	<u>6/</u> N8201605	HRW	62.0	71.6	0.39	86.9	12.0	63.0	3H
830907	NOT AVAILABLE	<u>6/</u> N8201606	HRW	61.9	71.7	0.39	86.7	11.8	61.4	3H
830908	WA5514/IT//CER	<u>6/</u> N8201909	HRW	63.3	72.3	0.39	87.5	11.7	63.5	5H
830909	HATTON	C1017772	HRW	63.9	72.3	0.37	88.8	10.4	61.9	3H
830910	ALLEN#62/ID000092(ADV. IV)	<u>6/</u> N8202503	HRW	62.4	71.1	0.38	86.6	10.6	63.3	3H
830911	CERCO/N7300101	N8203005	HRW	62.2	71.5	0.37	87.5	11.6	61.4	2H
830912	TP107/5909/3/173467/GNS/	N8203104	HRW	62.4	69.5	0.38	84.9	12.1	63.0	3H
830913	167822/101/9342/101//TP/	N8203304	HRW	62.6	71.7	0.39	87.1	11.7	63.4	2H
830914	14106/3/GNS//BURT/IT	N8204903	HRW	63.5	72.5	0.35	89.6	10.0	63.5	3H
830915	HATTON	C1017772	HRW	64.1	71.3	0.39	86.2	11.2	63.0	2H

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 11% Protein.4/ Observed Values Corrected to 11% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.



NURSCO 28

LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
				3/				4/		
830883	CCP/3/OMAR/IT//13438/HN7(ADV. I)	N8200101	HRW	66.4	66.6	3.4	850	862	3	P-LVOL
830884	N6754/SM7437/CERCO//N72	N8200502	HRW	67.0	66.3	2.6	960	917	2	
830885	N6754/SM7437/CERCO//WA59	N8200602	HRW	67.7	65.7	2.1	925	801	2	Good Pro.- Q-LV
830886	CLE//SM7437/N6754/3/N732	N8200701	HRW	65.9	65.2	2.9	910	867	3	Q-LVOL
830887	HTN SIB//SHORT WHEAT/SVT	N8200912	HRW	66.4	66.3	3.6	890	884	4	P-BCRGR
830888	HTN SIB//SHORT WHEAT/SVT	N8200914	HRW	68.4	67.7	2.8	935	892	2	
830889	HTN SIB//SHORT WHEAT SVT	N8200921	HRW	67.7	67.6	2.5	925	919	3	
830890	HATTON	C1017772	HRW	68.4	67.1	2.8	985	904	2	P-BCRGR&MTIME
830891	N700194/9342/101/TP/SPRA(ADV. II)	N8201801	HRW	65.9	64.6	1.6	955	874	4	P-BCRGR
830892	N700194/9342/100/TP/SPRA	N8201802	HRW	67.3	66.9	3.2	915	890	5	P-BCRGR
830893	WA5514/IT//CER	N8201903	HRW	67.5	66.2	3.2	985	904	3	
830894	WA5514/IT//CER	N8201905	HRW	67.4	66.0	2.0	970	883	2	Q-MTIME
830895	WA5514/IT//CER	N8201908	HRW	66.0	64.9	3.2	1010	942	2	
830896	KAVKAZ/PAHA	N8202302	HRW	66.3	65.4	2.8	985	929	3	
830897	167822/101//LUKE/3/WA700	N8202401	HRW	63.0	63.3	2.6	880	899	4	P-BCRGR
830898	167822/101//LUKE/3/WA700	N8202403	HRW	63.9	64.1	2.7	870	882	6	P-BCRGR
830899	HATTON	C1017772	HRW	67.5	66.2	2.7	985	904	2	
830900	N6754/SM7437//CERCO//N72(ADV. III)	N8200503	HRW	67.0	66.4	2.5	940	903	5	P-BCRGR
830901	N6754/SM7437//CERCO//WA59	N8200604	HRW	66.4	65.8	2.4	915	878	5	P-BCRGR
830902	HTN SIB//SHORT WHEAT/SVT	N8200931	HRW	63.4	64.6	2.6	815	889	7	P-BCRGR
830903	HTN SIB//SHORT WHEAT/SVT	N8200932	HRW	65.5	66.4	2.6	815	871	6	P-BCRGR
830904	N7200043/CENTURK	N8201514	HRW	68.7	68.0	3.8	900	857	5	P-BCRGR
830905	N7200043/CENTURK	N8201518	HRW	67.2	66.2	2.8	940	878	5	P-BCRGR
830906	TP107/N6754/SM7437/N7134	N8201605	HRW	67.2	66.2	3.4	950	888	2	
830907	NOT AVAILABLE	N8201606	HRW	65.4	64.6	3.4	950	900	3	
830908	WA5514/IT//CER	N8201909	HRW	68.4	67.7	3.6	980	937	3	
830909	HATTON	C1017772	HRW	65.5	66.1	3.1	890	927	4	P-BCRGR
830910	ALLEN#62/ID000092(ADV. IV)	N8202503	HRW	68.6	69.0	3.6	943	968	2	
830911	CERCO/N7300101	N8203005	HRW	66.2	65.6	2.2	915	878	6	P-BCRGR&MTIME
830912	TP107/5909/3/173467/GNS/	N8203104	HRW	68.8	67.7	3.2	988	920	3	Q-FYELD
830913	167822/101/9342/101//TP/	N8203304	HRW	68.3	67.6	2.5	985	942	5	P-BCRGR
830914	14106/3/GNS//BURT/IT	N8204903	HRW	66.7	67.7	2.6	825	887	8	P-BCRGR
830915	HATTON	C1017772	HRW	65.4	65.2	2.1	950	938	3	

COMMENTS: Selection N820062 is high in protein. See "Remarks" column for deficiencies of selections not footnoted for good overall quality.

P = Poor; Q = Questionable



NURSCO 29

LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
830916	HATTON 1	C1017772	HRW	64.0	71.0	0.36	87.8	11.1	64.4	4H	66.7
830917		6/ N8300402	HRW	63.2	68.9	0.35	86.1	12.0	64.8	5H	68.0
830918		N8300404	HRW	64.0	68.2	0.33	86.1	12.0	65.6	5H	69.8
830919		5/ N8302602	HRW	62.8	73.1	0.33	91.6	12.1	62.7	6H	66.5
830920		N8305801	HRW	62.8	69.1	0.35	86.2	10.9	65.0	5H	68.6
830921		6/ N8305903	HRW	62.4	72.7	0.35	90.1	10.8	63.0	5H	66.0
830922		N8310704	HRW	61.1	67.2	0.36	83.7	11.6	64.5	6H	68.3
830923		6/ N8310705	HRW	62.0	69.6	0.36	86.2	11.6	64.5	5H	67.3
830924		N8310706	HRW	62.0	68.1	0.36	84.8	11.5	65.4	6H	69.1
830925		N8310701	HRW	61.6	68.7	0.36	85.2	10.2	64.0	5H	66.9
830926		5/ N8310702	HRW	61.6	69.0	0.35	86.1	11.6	64.5	5H	68.3
830927	HATTON 2	C1017772	HRW	63.6	70.1	0.35	87.4	10.6	62.7	4H	64.0
830928	NUGAINES 2	C1013968	SWW	61.2	67.6	0.35	85.0	8.9	57.5	3M	55.6
830929		N8310703	HRW	62.0	69.6	0.35	86.8	11.0	64.2	5H	66.9
830930		N8302703	HRW	62.0	70.6	0.35	87.9	11.0	60.6	2H	62.8
830931		N8302704	HRW	62.4	70.0	0.34	87.5	10.7	61.3	4M	65.2
830932		N8302705	HRW	62.4	70.2	0.32	88.7	11.2	61.0	4M	64.4
830933		6/ N8302701	HRW	61.6	70.7	0.35	87.8	11.0	65.1	5H	67.3
830934		N8302702	HRW	61.6	68.2	0.37	84.5	13.9	62.1	2H	68.2
830935		N8302601	HWW	62.8	74.1	0.38	91.2	10.9	60.3	4H	64.4
830936		N8300201	HRW	62.8	72.4	0.37	88.5	9.9	60.6	8M	63.7
830937	HATTON 3	C1017772	HRW	63.6	70.3	0.36	87.0	11.2	64.6	4H	67.0
830938		N8300301	HRW	62.4	68.9	0.37	84.9	10.7	62.1	5H	66.0
830939		6/ N8300403	HRW	62.0	67.6	0.34	85.3	11.8	66.2	6H	70.2
830940		6/ N8300503	HRW	62.4	69.1	0.36	85.6	12.0	63.8	6H	69.5
830941		6/ N8300501	HRW	61.6	68.4	0.37	84.4	11.0	64.8	5H	67.0
830942		N8300502	HRW	60.8	67.7	0.35	84.6	10.8	61.9	6H	65.9
830943		N8300801	HRW	62.4	71.6	0.37	87.9	10.5	64.1	4H	67.8
830944		N8300902	HRW	61.2	68.3	0.34	85.8	11.7	62.5	4H	66.4
830945	HATTON 4	C1017772	HRW	63.6	70.1	0.36	87.0	10.5	64.0	4H	67.2
830946		6/ N8300901	HRW	62.4	68.9	0.35	85.8	10.7	62.4	5H	64.3
830947		N8301105	HRW	61.2	67.2	0.37	83.2	10.1	63.2	5H	65.5
830948		N8301106	HRW	61.6	67.6	0.34	85.2	10.1	62.8	5H	65.6
830949		5/ N8301101	HRW	62.0	70.8	0.35	87.9	11.9	63.5	5H	67.6
830950		N8301102	HRW	62.4	68.2	0.37	84.0	10.8	61.4	5H	64.4

1 Observed Values Corrected to 14% Moisture Basis.

2 Absorption at 14% Moisture Corrected to 11% Protein.

4 Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 29

LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	CODI	CODIC 4/	RMKS
830916	HATTON 1	C1017772	HRW	66.6	4.0	920	914	3			P-Crumb Grain
830917		N8300402	HRW	67.0	4.2	980	918	2			
830918		N8300404	HRW	68.8	4.6	933	871	5			
830919		N8302602	HRW	65.4	6.3	1000	932	2			Q-BCRGR
830920		N8305801	HRW	68.7	4.9	950	956	4			
830921		N8305903	HRW	66.2	4.5	895	907	2			Q-BCRGR&FYELD
830922		N8310704	HRW	67.7	6.0	960	923	4			
830923		N8310705	HRW	66.7	4.4	960	923	3			Q-MSCOR&BCRGR
830924		N8310706	HRW	68.6	5.9	975	944	3			Q-MSCOR&BCRGR
830925		N8310701	HRW	67.7	5.1	915	965	4			
830926		N8310702	HRW	67.7	4.5	1015	978	1			
830927	HATTON 2	C1017772	HRW	64.4	3.6	908	933	2			
830928	NUGAINES 2	C1013968	SWW	57.7	1.9	880	1006	6			Q-BCRGR
830929		N8310703	HRW	66.9	6.0	948	948	4			P-BCRGR&LVOL
830930		N8302703	HRW	62.8	3.3	780	780	8			
830931		N8302704	HRW	65.5	3.6	795	814	8			P-BCRGR&LVOL
830932		N8302705	HRW	64.2	3.3	830	818	6			P-BCRGR&LVOL
830933		N8302701	HRW	67.3	4.1	955	955	2			Q-LVOL&BCRGR
830934		N8302702	HRW	65.3	2.3	975	795	3			P-BCRGR&LVOL
830935		N8302601	HWW	64.5	4.1	865	871	6			P-BCRGR&LVOL
830936		N8300201	HRW	64.8	4.8	875	943	5			
830937	HATTON 3	C1017772	HRW	66.8	4.2	955	943	2			
830938		N8300301	HRW	66.3	3.9	980	999	3			Q-FYELD
830939		N8300403	HRW	69.4	5.2	1018	968	1			Q-FYELD
830940		N8300503	HRW	68.5	6.4	1005	943	2			
830941		N8300501	HRW	67.0	4.7	1025	1025	2			Q-FYELD
830942		N8300502	HRW	66.1	6.5	980	992	2			P-FYELD
830943		N8300801	HRW	68.3	4.0	893	924	5			Q-BCRGR
830944		N8300902	HRW	65.7	3.7	1010	967	3			Q-BCRGR
830945	HATTON 4	C1017772	HRW	67.7	3.9	905	936	3			
830946		N8300901	HRW	64.6	5.7	950	969	2			Q-FYELD
830947		N8301105	HRW	66.4	5.2	965	1021	2			Q-FYELD
830948		N8301106	HRW	66.5	5.6	950	1006	3			
830949		N8301101	HRW	66.7	6.4	1055	999	2			
830950		N8301102	HRW	64.6	5.7	1060	1072	2			Q-FYELD





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LABNUM	VARIETY	IDNO	CLASS	TWT	FYLD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
830951	HATTON 5	6/N8301103	HRW	62.4	69.8	0.35	86.8	10.9	61.7	5H	63.8
830952		6/N8301104	HRW	63.6	70.0	0.38	85.7	11.5	63.0	5H	65.7
830953		C1017772	HRW	64.0	69.8	0.35	87.2	10.7	64.2	4H	66.1
830954		N8301801	HRW	61.2	68.3	0.34	85.8	12.3	60.5	2H	64.0
830955		N8301802	HRW	63.2	69.7	0.35	86.9	9.8	58.9	6M	59.9
830956		5/N8302002	HRW	64.0	72.3	0.33	90.5	11.6	62.0	3H	64.8
830957		N8302001	HRW	62.8	67.5	0.38	83.2	10.3	60.9	4M	62.4
830958		5/N8302302	HRW	62.4	71.5	0.35	88.8	11.1	61.7	2H	64.0
830959		6/N8302303	HRW	63.6	72.6	0.33	91.1	10.8	63.0	4H	65.0
830960		N8302301	HRW	62.0	72.5	0.32	91.3	9.9	58.7	6M	60.8
830961	HATTON 6	C1017772	HRW	64.0	70.8	0.35	87.9	10.6	64.6	3H	66.4
830962		N8302501	HRW	62.0	70.5	0.36	87.2	10.7	62.9	2H	64.8
830963		N8303001	HRW	62.4	72.7	0.34	90.5	10.7	62.6	2H	64.5
830964		5/N8303901	HRW	62.0	72.5	0.35	89.6	11.1	63.0	5H	66.3
830965		C1017772	HRW	63.2	68.9	0.36	85.5	11.8	63.9	4H	66.9
830966		N8303902	HRW	62.4	67.8	0.37	83.7	12.1	64.3	3H	68.6
830967		6/N8304301	HRW	62.4	70.9	0.34	88.4	11.1	63.1	2H	63.9
830968		5/N8304804	HRW	62.0	70.2	0.33	88.5	10.8	62.8	4H	66.8
830969		5/N8304805	HRW	62.8	70.8	0.38	86.5	11.4	62.8	4H	66.4
830970		5/N8304801	HRW	61.2	70.7	0.35	87.8	11.9	63.0	6H	67.1
830971	HATTON 8	5/ N8304802	HRW	62.4	72.1	0.35	89.2	11.4	64.6	5H	68.2
830972		N8304803	HRW	62.0	71.7	0.34	89.4	12.5	64.0	5H	69.7
830973		N8300101	HRW	62.8	66.8	0.34	84.2	12.0	65.4	5H	68.6
830974		C1017772	HRW	63.6	70.5	0.36	87.5	11.1	63.2	4H	66.5
830975		5/ N8300601	HRW	61.6	72.2	0.36	89.1	11.9	63.0	4H	67.1
830976	HATTON 9	6/ N8301001	HRW	63.2	70.7	0.32	89.7	10.8	62.8	4H	64.8
830977		N8301401	HRW	62.4	74.6	0.39	90.0	10.2	62.7	6M	62.1
830978		C1017772	HRW	63.6	70.2	0.35	87.3	10.8	63.0	6M	65.0
830979		N8302201	HRW	62.4	71.6	0.35	88.9	11.1	59.6	3M	61.9
830980		N8302801	HRW	62.0	68.9	0.33	87.0	9.8	60.3	4M	61.3
830981		N8303101	HRW	61.6	71.0	0.36	87.9	11.6	61.6	2H	62.4
830982		6/N8304201	HRW	62.4	70.8	0.37	87.1	12.0	63.8	3H	67.0
830983		6/N8304501	HRW	62.8	70.2	0.33	88.4	10.9	65.5	6H	67.6
830984		N8305301	HRW	63.6	71.1	0.36	88.0	11.4	62.3	2H	63.9
830985		N8305402	HRW	62.8	73.2	0.33	91.5	10.4	60.8	6M	61.4



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LABNUM	VARIETY	IDNO	CLASS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	CODI	CODIC 4/	RMKS
830951	HATTON 5	N8301103	HRW	63.9	4.1	955	961	3			
830952		N8301104	HRW	65.2	4.4	1045	1014	2			
830953		C1017772	HRW	66.4	3.8	910	929	3			
830954		N8301801	HRW	62.7	1.9	865	784	8			P-LVOL&BCRGR
830955		N8301802	HRW	61.1	4.2	885	959	7			P-LVOL&BCRGR
830956		N8302002	HRW	64.2	3.1	1000	963	1			
830957		N8302001	HRW	63.1	4.0	915	958	6			P-FYELD&BCRGR
830958		N8302302	HRW	63.9	2.5	975	969	2			
830959		N8302303	HRW	65.2	3.5	915	927	3			
830960		N8302301	HRW	61.9	3.4	835	903	8			P-LVOL&BCRGR
830961	HATTON 6	C1017772	HRW	66.8	3.4	940	965	2			
830962		N8302501	HRW	65.1	2.2	940	959	5			P-BCRGR
830963		N8303001	HRW	64.8	2.5	885	904	4			P-BCRGR
830964		N8303901	HRW	66.2	4.8	955	949	2			
830965		C1017772	HRW	66.1	3.7	1005	955	2			
830966		N8303902	HRW	67.5	4.8	1010	942	2			P-FYELD
830967		N8304301	HRW	63.8	2.4	945	939	2			
830968		N8304804	HRW	67.0	4.5	970	982	2			
830969		N8304805	HRW	66.0	3.6	1010	985	2			
830970		N8304801	HRW	66.2	8.0	1035	979	2			
830971	HATTON 8	N8304802	HRW	67.8	6.3	1000	975	2			
830972		N8304803	HRW	68.2	5.0	1010	917	2			
830973		N8300101	HRW	67.6	5.1	1040	978	1			P-FYELD
830974		C1017772	HRW	66.4	3.8	975	969	2			
830975		N8300601	HRW	66.2	4.8	1030	974	1			
830976	HATTON 9	N8301001	HRW	65.0	4.0	950	962	2			
830977		N8301401	HRW	62.9	3.5	920	970	2			
830978		C1017772	HRW	65.2	3.7	925	937	2			
830979		N8302201	HRW	61.8	2.7	855	849	6			P-LVOL&BCRGR
830980		N8302801	HRW	62.5	3.5	875	949	6			P-LVOL&BCRGR
830981		N8303101	HRW	61.8	1.5	985	948	2			P-MTIME
830982		N8304201	HRW	66.0	2.9	1005	943	2			
830983		N8304501	HRW	67.7	9.5	1015	1021	2			Q-MTIME
830984		N8305301	HRW	63.5	2.2	905	880	3			Q-BCRGR
830985		N8305402	HRW	62.0	4.2	805	842	8			P-LVOL&BCRGR



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LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/ 1/		1/ 1/	3/ 3/		
830986	HATTON 10	6/N8305501	HRW	62.8	69.1	0.34	87.0	11.3	65.6	4H	68.1
830987		N8305601	HRW	62.0	68.6	0.34	86.4	10.6	64.0	5H	65.8
830988		N8305702	HRW	63.6	71.3	0.35	88.5	10.0	64.2	3H	65.4
830989		N8305703	HRW	63.2	70.2	0.32	88.8	10.8	63.2	2H	64.2
830990		N8305701	HRW	64.4	72.2	0.36	88.9	10.7	62.5	2H	63.4
830991	HATTON 10	C1017772	HRW	63.6	70.2	0.36	87.0	10.5	64.0	4H	64.7
830992		N8306202	HRW	62.0	70.6	0.37	86.6	9.9	61.3	6M	63.4
830993		N8306201	HRW	62.4	69.9	0.33	88.2	9.9	62.5	8M	64.6
830994		6/N8301303	HRW	62.0	70.7	0.36	87.4	11.0	62.7	5H	65.9
830995		6/N8301304	HRW	63.6	71.5	0.35	88.6	11.4	63.4	5H	66.0
830996	HATTON 11	6/N8301301	HRW	62.8	70.9	0.35	88.0	10.8	62.1	4H	65.6
830997		6/N8301302	HRW	63.2	69.4	0.36	85.9	12.2	65.7	5H	70.1
830998		C1017772	HRW	64.0	70.4	0.35	87.5	9.8	61.1	6M	62.1
830999		N8301701	HRW	62.0	69.6	0.35	86.5	10.0	60.7	4M	61.9
831000		N8301901	HRW	62.0	68.5	0.37	84.6	9.7	59.6	4M	61.5
831001	HATTON 12	N8301902	HRW	62.4	71.6	0.35	88.8	9.5	60.9	4M	62.6
831002		6/N8302401	HRW	62.8	71.8	0.37	88.0	11.2	60.2	3H	62.6
831003		C1017772	HRW	64.0	69.9	0.36	86.6	10.0	63.2	4M	64.4
831004		N8302901	HRW	62.4	71.7	0.39	86.8	10.0	62.0	3M	63.2
831005		N8303204	HRW	62.0	69.8	0.36	86.5	10.9	60.8	4M	62.9
831006		N8303205	HRW	63.6	68.3	0.33	86.5	10.2	60.5	2M	62.9
831007		N8303201	HRW	61.2	71.4	0.37	87.5	11.0	62.3	3H	64.5
831008		N8303202	HRW	63.2	68.6	0.33	86.7	10.9	59.7	2M	62.8
831009		N8303203	HRW	62.4	70.6	0.35	87.7	11.1	60.2	4M	63.0
831010		N8303301	HRW	62.8	70.1	0.35	87.1	9.7	60.7	8M	62.6
831011		N8303302	HRW	62.0	69.8	0.35	86.9	9.9	62.1	2H	62.2
831012		N8303404	HRW	62.8	70.3	0.34	87.9	8.6	59.3	5M	60.1
831013		N8303405	HRW	62.4	72.6	0.36	89.5	9.9	61.8	6M	64.9
831014		N8303401	HRW	62.0	69.8	0.38	85.6	9.3	56.9	2M	57.4
831015		N8303402	HRW	62.0	70.3	0.39	85.3	8.8	60.6	5M	60.6
831016	HATTON 13	N8303403	HRW	62.8	69.8	0.34	87.5	9.2	57.0	2M	57.9
831017		C1017772	HRW	64.0	70.2	0.35	87.4	10.8	63.1	4H	65.1
831018		N8303701	HRW	61.6	72.1	0.35	89.6	11.0	61.8	4M	64.0
831019		N8303801	HRW	62.8	69.6	0.35	86.8	10.9	61.8	4H	64.9
831020		6/N8303803	HRW	62.0	71.8	0.38	87.3	11.3	63.0	5H	67.0





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LABNUM	VARIETY	IDNO	CLASS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	CODI	CODIC 4/	RMKS
830986	HATTON 10	N8305501	HRW	67.8	2.7	955	936	3			Q-BCRGR
830987		N8305601	HRW	66.2	4.6	840	865	6			P-LVOL&BCRGR
830988		N8305702	HRW	66.4	2.7	860	922	4			P-LVOL&BCRGR
830989		N8305703	HRW	64.4	1.8	880	892	5			P-LVOL&BCRGR
830990		N8305701	HRW	63.7	1.9	905	924	2			Short MTIME
830991	HATTON 10	C1017772	HRW	65.2	3.4	913	944	3			P-LVOL&BCRGR
830992		N8306202	HRW	64.5	3.9	870	938	6			P-LVOL&BCRGR
830993		N8306201	HRW	65.7	4.8	850	918	4			P-LVOL&BCRGR
830994		N8301303	HRW	65.9	4.3	925	925	2			P-LVOL&BCRGR
830995		N8301304	HRW	65.6	4.1	980	955	2			P-LVOL&BCRGR
830996	HATTON 11	N8301301	HRW	65.8	3.5	925	937	2			P-LVOL&BCRGR
830997		N8301302	HRW	68.9	4.3	990	916	2			P-LVOL&BCRGR
830998		C1017772	HRW	63.3	2.8	860	934	3			P-LVOL&BCRGR
830999		N8301701	HRW	62.9	2.8	785	847	4			P-LVOL&BCRGR
831000		N8301901	HRW	62.8	2.7	790	871	6			P-LVOL&BCRGR
831001	HATTON 12	N8301902	HRW	64.1	2.9	805	898	5			P-LVOL&BCRGR
831002		N8302401	HRW	62.4	2.6	895	883	2			P-LVOL&BCRGR
831003		C1017772	HRW	65.4	2.8	860	922	3			P-LVOL&BCRGR
831004		N8302901	HRW	64.2	2.5	825	887	5			P-LVOL&BCRGR
831005		N8303204	HRW	63.0	2.7	790	796	8			P-LVOL&BCRGR
831006		N8303205	HRW	63.7	2.1	710	760	9			P-LVOL&BCRGR
831007		N8303201	HRW	64.5	2.6	865	865	4			P-LVOL&BCRGR
831008		N8303202	HRW	62.9	2.0	780	786	8			P-LVOL&BCRGR
831009		N8303203	HRW	62.9	2.8	825	819	6			P-LVOL&BCRGR
831010		N8303301	HRW	63.9	5.7	805	886	4			P-LVOL&BCRGR
831011		N8303302	HRW	63.3	2.1	855	923	8			P-LVOL&BCRGR
831012		N8303404	HRW	62.5	3.1	780	929	8			P-LVOL&BCRGR
831013		N8303405	HRW	66.0	2.9	840	908	4			P-LVOL&BCRGR
831014		N8303401	HRW	59.1	1.2	755	860	9			P-LVOL&BCRGR
831015		N8303402	HRW	62.8	2.8	735	871	9			P-LVOL&BCRGR
831016	HATTON 13	N8303403	HRW	59.7	1.7	715	827	9			P-LVOL&BCRGR
831017		C1017772	HRW	65.3	3.1	990	1002	2			Q-BCRGR
831018		N8303701	HRW	64.0	2.7	950	950	3			Q-BCRGR
831019		N8303801	HRW	65.0	3.6	900	906	3			
831020		N8303803	HRW	66.7	5.5	965	946	2			



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LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/ 1/		1/ 1/	3/ 3/		
831021		N8304001	HRW	62.4	70.3	0.36	87.1	9.1	62.8	3H	62.6
831022		6/N8304102	HRW	63.6	71.3	0.34	89.1	10.3	64.0	5H	66.0
831023		6/N8304103	HRW	62.8	71.2	0.32	89.9	11.0	62.2	6M	65.4
831024		5/N8304104	HRW	63.2	73.9	0.35	91.3	11.3	62.8	4H	66.3
831025		6/N8304101	HRW	63.2	72.3	0.32	90.9	10.9	63.3	5H	66.4
831026		6/N8304401	HRW	61.2	70.2	0.33	88.5	10.6	62.4	8M	66.2
831027		6/N8304601	HRW	62.0	71.1	0.33	89.2	10.2	63.4	8M	65.8
831028	HATTON 14	C1017772	HRW	64.4	71.4	0.35	88.4	10.4	63.2	4H	64.8
831029		N8304702	HRW	61.6	71.1	0.32	89.7	10.9	61.4	5H	64.5
831030		6/N8304701	HRW	62.4	71.7	0.37	88.1	10.4	61.1	5H	63.7
831031		N8304901	HRW	62.8	69.8	0.37	86.1	9.7	61.3	2H	62.7
831032		N8305001	HRW	62.0	71.9	0.38	87.5	10.8	62.9	4H	65.4
831033		N8305904	HRW	64.0	71.4	0.33	89.7	10.2	62.4	8M	65.8
831034	HATTON 15	C1017772	HRW	64.0	71.5	0.38	87.1	10.5	63.6	4H	65.3
831035		N8305901	HRW	61.6	68.8	0.32	87.4	10.3	61.3	8M	65.3
831036		6/N8305902	HRW	62.4	70.8	0.33	89.2	11.0	63.6	4H	66.8
831037		6/N8306001	HRW	62.0	70.3	0.35	87.6	10.2	63.4	3H	65.3
831038		N8306002	HRW	63.6	69.7	0.35	86.7	9.6	64.0	4H	65.8
831039		6/N8306101	HRW	63.2	71.4	0.33	89.8	10.2	63.7	2H	65.1
831040		N8306602	HRW	63.2	66.9	0.35	84.2	9.5	61.8	6M	64.5
831041		6/N8306601	HRW	64.0	70.7	0.37	86.8	9.8	62.4	2H	64.4
831042		6/N8306701	HRW	62.8	70.6	0.36	87.0	10.1	63.7	4H	65.5
831043		N8306802	HRW	63.6	72.1	0.34	89.9	10.3	62.5	4H	65.0
831044		N8306801	HRW	62.8	67.8	0.34	85.7	12.0	64.3	4H	68.5
831045		N8306901	HRW	63.2	73.6	0.36	90.6	10.1	59.6	3M	57.4
831046	HATTON 16	C1017772	HRW	65.2	71.3	0.36	88.1	10.8	63.2	3H	66.2
831047		6/N8307101	HRW	64.0	71.7	0.37	88.0	10.6	61.9	4M	64.7
831048		N8307102	HRW	64.4	71.1	0.37	87.0	10.7	62.1	4H	64.0
831049		N8307103	HRW	64.0	69.8	0.36	86.3	10.7	63.6	2H	65.5
831050		N8307201	HRW	64.0	71.6	0.38	87.4	10.1	61.7	4H	63.0
831051		N8307301	HRW	64.4	69.1	0.37	85.0	12.7	62.8	1H	66.7
831052		N8307401	HRW	64.4	70.2	0.33	88.7	10.8	61.5	1H	62.5
831053		N8307402	HRW	63.2	68.2	0.38	83.7	9.9	61.3	1H	62.4
831054		N8307403	HRW	63.6	68.2	0.35	85.2	11.0	62.2	1H	64.4
831055		N8307501	HRW	63.2	69.1	0.37	85.3	11.1	62.2	2H	64.5



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LABNUM	VARIETY	IDNO	CLASS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	CODI	CODIC 4/	RMKS
831021		N8304001	HRW	64.5	2.4	855	973	4			Q-BCRGR
831022		N8304102	HRW	66.7	5.6	905	948	2			
831023		N8304103	HRW	65.4	4.4	935	935	2			
831024		N8304104	HRW	66.0	4.5	970	951	2			
831025		N8304101	HRW	66.5	5.6	940	946	3			Q-BCRGR
831026		N8304401	HRW	66.6	4.5	970	995	2			
831027		N8304601	HRW	66.6	5.6	935	985	3			Q-BCRGR
831028	HATTON 14	C1017772	HRW	65.4	3.1	900	937	3			
831029		N8304702	HRW	64.6	4.9	855	861	4			P-LVOL&BCRGR
831030		N8304701	HRW	64.3	5.2	890	927	3			
831031		N8304901	HRW	64.0	2.5	840	921	8			P-LVOL&BCRGR
831032		N8305001	HRW	65.6	2.9	870	882	6			P-LVOL&BCRGR
831033		N8305904	HRW	66.6	7.8	815	865	5			P-LVOL&BCRGR
831034	HATTON 15	C1017772	HRW	65.8	3.0	875	906	2			
831035		N8305901	HRW	66.0	4.7	870	913	3			Q-FYELD&BCRGR
831036		N8305902	HRW	66.8	4.5	885	885	2			
831037		N8306001	HRW	66.1	2.9	880	930	3			Q-BCRGR
831038		N8306002	HRW	67.2	3.4	830	917	6			P-BCRGR
831039		N8306101	HRW	65.9	2.2	910	960	3			
831040		N8306602	HRW	66.0	4.3	903	996	4			P-BCRGR
831041		N8306601	HRW	65.6	2.5	910	984	3			
831042		N8306701	HRW	66.4	3.1	910	966	2			
831043		N8306802	HRW	65.7	3.1	910	953	4			
831044		N8306801	HRW	67.5	3.6	900	838	3			P-BCRGR
831045		N8306901	HRW	58.3	1.8	805	861	8			Q-BCRGR&LVOL P-BCRGR
831046	HATTON 16	C1017772	HRW	66.4	2.8	925	937	2			
831047		N8307101	HRW	65.1	3.1	890	915	2			
831048		N8307102	HRW	64.3	2.9	925	944	4			
831049		N8307103	HRW	65.8	1.9	925	944	3			Q-BCRGR Q-BCRGR
831050		N8307201	HRW	63.9	3.7	855	911	4			Q-BCRGR
831051		N8307301	HRW	65.0	1.4	1020	915	2			Short Mix
831052		N8307401	HRW	62.7	1.1	810	822	8			P-LVOL&BCRGR
831053		N8307402	HRW	63.5	1.3	790	858	8			
831054		N8307403	HRW	64.4	1.4	900	900	8			P-LVOL&BCRGR
831055		N8307501	HRW	64.4	1.8	955	949	2			P-FYELD-Short Mix





## PRELIMINARY HARD RED WINTER

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LABNUM	VARIETY	IDNO	CLASS	TWT	FYLD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
831056		6/N8307601	HRW	60.8	70.9	0.39	85.8	10.7	62.0	3H	64.4
831057		5/N8307901	HRW	65.2	73.1	0.36	90.0	10.6	63.3	5H	66.1
831058		N8308001	HRW	64.4	71.8	0.37	88.0	10.3	62.0	6M	64.5
831059		N8308103	HRW	64.4	71.1	0.36	87.7	10.3	61.9	6M	63.4
831060		6/N8308104	HRW	64.4	71.4	0.38	87.2	10.8	62.2	6M	65.2
831061		N8308101	HRW	64.8	71.8	0.37	88.0	11.0	62.1	5H	65.3
831062		5/N8308102	HRW	65.2	72.3	0.36	89.1	10.7	63.5	4H	65.4
831063		5/N8308502	HRW	64.4	72.4	0.33	90.8	10.0	63.1	3H	65.8
831064		N8308501	HRW	64.4	72.0	0.35	89.3	9.8	63.7	4M	65.2
831065		N8308602	HRW	64.4	73.0	0.34	90.8	9.5	63.0	4M	63.7
831066		N8308603	HRW	64.4	72.7	0.34	90.7	10.1	64.0	3H	65.3
831067		6/N8308601	HRW	64.8	72.1	0.33	90.6	10.0	64.6	3H	65.8
831068		N8308702	HRW	64.8	72.0	0.33	90.5	10.6	62.1	2H	63.9
831069		5/N8308703	HRW	64.4	72.8	0.32	91.9	10.6	62.4	2H	64.2
831070		N8308701	HRW	64.4	73.2	0.32	91.9	9.8	62.9	2H	63.9
831071		5/N8308803	HRW	64.0	72.3	0.34	90.2	11.6	62.0	4H	65.8
831072		6/N8308801	HRW	64.4	72.0	0.36	88.5	11.5	63.3	3H	66.0
831073		6/N8308802	HRW	65.2	72.6	0.36	89.4	11.4	61.9	4H	67.5
831074	HATTON 17	C1017772	HRW	65.2	71.6	0.36	88.3	10.7	62.3	3H	64.2
831075		6/N8308901	HRW	63.6	70.4	0.38	86.3	10.3	62.2	4H	63.7
831076		6/N8309001	HRW	65.2	71.0	0.38	86.9	11.1	62.5	2H	64.8
831077		6/N8309002	HRW	65.2	71.1	0.37	87.3	10.9	62.9	2H	65.0
831078		6/N8309003	HRW	64.8	71.2	0.37	87.3	10.9	63.2	2H	65.3
831079		6/N8309004	HRW	64.4	70.5	0.37	86.6	10.7	62.3	3H	63.2
831080		N8309005	HRW	64.8	70.8	0.37	86.9	11.5	63.1	2H	64.8
831081		N8309006	HRW	64.8	71.1	0.37	87.5	11.2	63.6	2H	64.5
831082		N8309404	HRW	64.4	70.3	0.36	87.0	11.6	63.6	2H	65.4
831083		N8309405	HRW	64.8	69.9	0.36	86.6	11.0	62.5	4M	64.2
831084		N8309406	HRW	63.6	69.4	0.36	85.9	10.1	62.7	8M	65.0
831085		N8309408	HRW	63.2	69.9	0.35	86.9	9.7	61.1	6M	62.0
831086		N8309401	HRW	64.0	69.5	0.36	86.2	10.1	61.7	6M	63.0
831087		N8309402	HRW	63.2	70.6	0.35	88.0	11.8	62.3	1H	64.3
831088		N8309403	HRW	63.2	69.3	0.37	85.6	11.1	62.7	3M	64.5
831089	HATTON 18	C1017772	HRW	63.6	71.1	0.38	87.0	11.3	61.2	4M	63.7
831090		N8309501	HRW	64.0	72.4	0.33	90.8	10.2	62.8	6M	65.7



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LABNUM	VARIETY	IDNO	CLASS	3/		MTIME	LVOL	4/		BCRGR	CODI	CODIC	RMKS
				BABSC				LVOLC					
831056		N8307601	HRW	64.7	4.2	953	972		2				Q-FYELD
831057		N8307901	HRW	66.5	4.5	920	945		2				P-LVOL&BCRGR
831058		N8308001	HRW	65.2	3.7	845	888		6				Q-LVOL&BCRGR
831059		N8308103	HRW	64.1	2.5	870	913		3				
831060		N8308104	HRW	65.4	4.2	890	902		2				
831061		N8308101	HRW	65.3	4.8	885	885		4				Q-LVOL&BCRGR
831062		N8308102	HRW	65.7	3.1	915	934		2				
831063		N8308502	HRW	66.8	2.5	870	932		2				
831064		N8308501	HRW	66.4	2.5	815	889		5				P-LVOL&BCRGR
831065		N8308602	HRW	65.2	2.4	860	953		4				P-LVOL&BCRGR
831066		N8308603	HRW	66.2	2.6	865	921		4				P-LVOL&BCRGR
831067		N8308601	HRW	66.8	2.6	865	927		2				
831068		N8308702	HRW	64.3	1.9	905	930		4				Q-LVOL&BCRGR
831069		N8308703	HRW	64.6	2.3	930	955		2				
831070		N8308701	HRW	65.1	2.0	860	934		4				Q-BCRGR
831071		N8308803	HRW	65.2	4.1	940	903		2				
831072		N8308801	HRW	65.5	3.4	930	899		2				
831073		N8308802	HRW	67.1	4.5	905	880		2				
831074	HATTON 17	C1017772	HRW	64.5	3.2	890	909		4				
831075		N8308901	HRW	64.4	4.1	970	1013		2				
831076		N8309001	HRW	64.7	2.4	940	934		2				
831077		N8309002	HRW	65.1	2.5	925	931		2				
831078		N8309003	HRW	65.4	2.4	935	941		2				
831079		N8309004	HRW	63.5	2.5	905	924		2				
831080		N8309005	HRW	64.3	2.2	925	894		2				Q-MTIME
831081		N8309006	HRW	64.3	2.1	920	908		2				Q-MTIME
831082		N8309404	HRW	64.8	1.9	890	853		2				Q-MTIME P-LVOL
831083		N8309405	HRW	64.2	2.6	850	850		4				P-LVOL&BCRGR
831084		N8309406	HRW	65.9	4.5	810	866		6				P-LVOL&BCRGR
831085		N8309408	HRW	63.3	3.0	785	866		6				P-LVOL&BCRGR
831086		N8309401	HRW	63.9	3.0	810	866		5				P-LVOL&BCRGR
831087		N8309402	HRW	63.5	1.3	860	810		3				P-LVOL&BCRGR
831088		N8309403	HRW	64.4	1.7	860	854		2				P-MTIME&LVOL
831089	HATTON 18	C1017772	HRW	63.4	2.6	855	836		3				P-MTIME&LVOL
831090		N8309501	HRW	66.5	3.8	825	875		4				P-LVOL&BCRGR



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LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/ 1/			3/ 3/		
831091		N8309601	HRW	64.4	69.8	0.37	86.0	9.7	61.3	2M	62.2
831092		N8309705	HRW	62.8	71.5	0.37	87.9	10.7	60.8	4M	63.2
831093		N8309702	HRW	63.2	70.6	0.37	86.9	10.8	60.9	4M	62.9
831094		N8309703	HRW	63.6	70.0	0.36	86.6	10.6	62.2	6M	64.0
831095		N8309704	HRW	64.8	71.7	0.35	88.8	10.6	61.2	4M	63.5
831096		N8309802	HRW	62.8	69.9	0.37	85.9	12.1	61.6	2H	64.9
831097		5/ N8309801	HRW	62.8	71.4	0.36	88.2	11.7	61.1	4M	65.5
831098		5/ N8309902	HRW	63.2	70.2	0.36	86.8	12.2	63.3	4H	68.7
831099		N8309901	HRW	64.4	71.0	0.38	86.5	11.4	61.7	3H	65.3
831100	HATTON 19	C1017772	HRW	64.8	70.7	0.36	87.2	10.9	63.7	4H	66.3
831101		6/ N8310002	HRW	64.8	71.0	0.37	87.4	11.7	63.3	3H	68.2
831102		5/ N8310003	HRW	64.8	71.3	0.37	87.7	12.4	64.6	5H	70.2
831103		5/ N8310004	HRW	64.8	71.2	0.34	89.0	12.2	65.1	5H	69.5
831104		N8310001	HRW	63.6	70.1	0.37	86.2	12.2	63.8	3H	63.2
831105		6/ N8310102	HRW	65.5	71.3	0.35	88.4	12.0	64.5	4H	68.7
831106		5/ N8310101	HRW	63.2	70.9	0.32	89.7	12.5	65.5	5H	69.2
831107		6/ N8310201	HRW	62.0	68.9	0.38	84.5	10.8	63.0	4H	66.5
831108		5/ N8310502	HRW	63.6	71.4	0.38	86.9	10.9	62.2	3H	64.3
831109		5/ N8310501	HRW	63.2	70.6	0.37	86.9	11.0	61.6	6M	63.8
831110		6/ N8310601	HRW	62.8	71.9	0.36	88.7	11.2	61.7	4H	64.1
831111	HATTON 20	C1017772	HRW	65.6	71.1	0.36	88.0	10.6	62.5	3H	63.8
831112	NUGAINES 20	C1013968	SWW	63.6	68.2	0.37	84.2	9.6	57.5	2M	
831113		N8310801	HRW	62.8	72.3	0.34	89.9	10.1	62.9	2H	62.2
831114		N8300504	HWW	64.4	69.1	0.34	87.0	9.7	60.1	6M	63.5
831115		6/ N8300505	HWW	64.0	68.7	0.34	86.3	10.9	63.2	6H	67.3
831116		6/ N8300701	SWW	64.4	68.1	0.34	85.9	9.9	58.8	3M	
831117		6/ N8300702	SWW	62.8	69.2	0.40	83.7	9.3	58.8	3M	
831118	HATTON 21	C1017772	HRW	65.6	70.8	0.36	87.7	10.6	62.6	4M	63.9
831119	NUGAINES 21	C1013968	SWW	63.6	68.0	0.37	84.1	9.5	58.6	2M	
831120		5/ N8300703	SWW	64.0	72.2	0.40	87.7	9.3	57.8	2M	
831121		N8301201	HWW	63.2	70.3	0.41	84.6	10.3	60.6	3M	62.1
831122		6/ N8301501	SWW	64.8	69.7	0.40	84.1	9.6	56.8	2M	
831123		N8301502	SWW	63.2	66.7	0.40	80.6	9.4	57.5	2M	
831124		5/ N8301601	HWW	64.4	74.7	0.36	91.4	11.6	60.7	3H	63.5
831125	HATTON 22	C1017772	HRW	65.2	70.7	0.39	86.0	10.6	61.6	4M	63.4



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LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	LVOL	LVOLC	BCRGR	CODI	CODIC	RMKS
				3/			4/			4/	
831091	HATTON 19	N8309601	HRW	63.5	1.7	730	811	7			P-LVOL&BCRGR
831092		N8309705	HRW	63.5	2.6	815	834	6			P-LVOL&BCRGR
831093		N8309702	HRW	63.1	2.9	850	862	6			P-LVOL&BCRGR
831094		N8309703	HRW	64.4	3.1	850	875	3			Q-BCRGR
831095		N8309704	HRW	63.9	2.7	815	840	3			Q-LVOL&BCRGR
831096		N8309802	HRW	63.8	2.1	860	792	3			Q-BCRGR
831097		N8309801	HRW	64.8	3.1	950	907	2			
831098		N8309902	HRW	67.5	3.7	975	901	1			
831099		N8309901	HRW	64.9	3.2	775	750	8			P-LVOL&BCRGR
831100		C1017772	HRW	66.4	3.3	840	846	4			PoorHatton
831101		N8310002	HRW	67.5	3.2	925	882	2			Q-BCRGR
831102		N8310003	HRW	68.8	4.1	1015	928	2			
831103		N8310004	HRW	68.3	4.4	1000	926	2			
831104		N8310001	HRW	62.0	2.5	855	781	4			
831105		N8310102	HRW	67.7	3.9	875	813	2			
831106		N8310101	HRW	67.7	5.4	925	832	1			
831107		N8310201	HRW	66.7	4.0	955	967	4			
831108		N8310502	HRW	64.4	3.0	950	956	2			
831109		N8310501	HRW	63.8	3.6	910	910	2			
831110		N8310601	HRW	63.9	3.8	955	943	3			
831111	HATTON 20	C1017772	HRW	64.2	2.9	935	960	2			Short MTIME P-LVOL&BCRGR
831112	NUGAINES 20	C1013968	SWW						9.11	8.96	
831113		N8310801	HRW	63.1	2.3	923	979	3			
831114		N8300504	HWW	64.8	2.8	808	889	6			
831115		N8300505	HWW	67.4	4.5	883	889	2			
831116	HATTON 21 NUGAINES 21	N8300701	SWW						8.84	8.72	Excellent FYELD
831117		N8300702	SWW						9.17	8.99	
831118		C1017772	HRW	64.3	3.0	935	960	2			
831119		C1013968	SWW						8.96	8.80	
831120		N8300703	SWW						9.26	9.08	
831121	HATTON 22	N8301201	HWW	62.8	2.7	955	998	5			P-BCRGR
831122		N8301501	SWW						9.06	8.91	P-FYELD Outstanding
831123		N8301502	SWW						9.10	8.92	
831124		N8301601	HWW	62.9	3.3	1010	973	2			
831125		C1017772	HRW	63.8	3.0	920	945	2			





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LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
831126	NUGAINES 22	C1013968	SWW	63.6	67.7	0.40	81.7	9.9	57.4	2M	
831127		N8301803	SWW	64.8	73.2	0.39	89.2	11.6	58.1	3M	
831128		N8302101	HWW	63.6	71.6	0.41	85.9	9.7	61.6	4M	62.5
831129		N8303501	HWW	64.0	71.8	0.41	85.8	9.9	61.4	4M	62.5
831130		<u>6/</u> N8305201	SWW	62.8	69.0	0.43	81.5	9.6	58.2	3M	
831131		N8306401	HWW	64.0	69.8	0.41	84.0	9.7	61.6	4M	63.5
831132		N8306402	HWW	64.4	69.5	0.41	83.7	9.5	58.8	6M	60.0
831133	HATTON 23	C1017772	HRW	65.2	71.2	0.37	87.4	10.2	62.5	4M	62.9
831134	NUGAINES 23	C1013968	SWW	63.6	69.1	0.38	85.0	9.2	58.2	2M	
831135		N8306501	SWW	63.2	67.1	0.39	81.7	9.5	57.4	3M	
831136		N8306502	SWW	64.0	67.8	0.40	82.0	9.5	56.8	3M	
831137		N8307001	HWW	63.2	71.5	0.41	85.6	9.6	59.9	2M	
831138		N8307701	SWW	64.4	66.8	0.41	80.2	10.6	56.1	3M	59.7
831139		<u>6/</u> N8307801	SWW	64.0	68.3	0.41	81.8	10.7	57.5	3M	
831140		N8308301	HRW	64.4	71.7	0.41	86.0	9.1	58.7	5M	59.5
831141		N8308401	HWW	62.8	71.0	0.41	85.1	10.2	59.5	3M	60.9
831142		N8309201	SWW	64.0	72.4	0.42	86.5	9.4	56.0	2M	
831143		N8309301	SWW	63.2	64.9	0.39	78.7	9.3	56.4	3M	
831144		N8309407	HWW	64.0	71.1	0.39	86.0	9.2	59.8	4M	60.2
831145		N8309701	HWW	64.8	72.9	0.34	91.0	10.2	60.1	3M	62.5
831146	HATTON 24	C1017772	HRW	65.2	70.8	0.36	87.5	10.1	62.5	4M	63.8
831147	NUGAINES 24	C1013968	SWW	63.2	68.1	0.36	84.8	9.2	57.9	2M	
831148		<u>6/</u> N8310301	HRW	63.6	73.0	0.36	89.8	11.1	60.0	6M	63.8
831149		N8305101	HRW	64.0	71.7	0.36	88.3	9.8	61.0	4M	62.0
831150		N8305401	HRW	62.8	69.8	0.35	86.9	9.6	59.9	4M	60.7
831151		N8308201	SWW	64.0	63.2	0.37	78.2	10.2	59.0	3M	
831152		N8308804	HRW	63.6	71.2	0.35	88.4	9.2	59.2	4M	60.1
831153		<u>6/</u> N8309101	HRW	62.4	69.2	0.34	86.9	10.6	61.6	4H	63.9
831154		N8303601	HRW	63.2	71.5	0.39	86.8	10.4	60.9	4H	63.0
831155		<u>6/</u> N8303802	HRW	63.6	71.1	0.34	88.9	10.3	61.0	2H	62.5
831156		<u>6/</u> N8306301	HRW	63.2	69.5	0.36	86.2	10.6	61.5	3H	63.8
831157	HATTON 25	C1017772	HRW	65.2	71.3	0.36	88.2	10.1	61.8	4M	63.1
831158		<u>6/</u> N8303102	HRW	63.6	71.7	0.35	89.2	13.0	59.6	2H	63.8
831159		N8310401	HRW	64.8	70.5	0.36	87.2	10.5	62.6	4H	64.3
831160	BELONGS TO NURSERY 1	<u>6/</u> N8300401	HRW	62.8	67.9	0.34	85.7	12.7	62.2	5H	66.6



NURSCO 29

LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	LVOL	LVOLC	BCRGR	CODI	CODIC	RMKS
				3/			4/			4/	
831126	NUGAINES 22	C1013968	SWW						8.89	8.77	
831127		N8301803	SWW						8.45	8.52	P-CODI
831128		N8302101	HWW	63.8	2.8	875	956	6			P-BCRGR
831129		N8303501	HWW	63.6	3.2	915	983	1			
831130		N8305201	SWW						9.04	8.88	
831131		N8306401	HWW	64.8	3.4	890	971	6			P-BCRGR
831132		N8306402	HWW	61.5	4.2	845	938	6			P-BCRGR
831133	HATTON 23	C1017772	HRW	63.7	3.1	895	945	2			
831134	NUGAINES 23	C1013968	SWW						8.75	8.55	
831135		N8306501	SWW						9.02	8.86	Q-FYELD
831136		N8306502	SWW						9.22	9.06	Q-FYELD
831137		N8307001	HWW	61.1	1.3	875	962	5			P-MTIME&BCRGR
831138		N8307701	SWW						9.22	9.18	Q-FYELD
831139		N8307801	SWW						8.81	8.78	
831140		N8308301	HRW	61.4	3.2	725	843	8			P-LVOL&BCRGR
831141		N8308401	HWW								
831142		N8309201	SWW	61.7	2.3	800	850	7			P-LVOL&BCRGR
831143		N8309301	SWW						8.86	8.69	
831144		N8309407	HWW	62.0	3.4	785	897	8	9.16	8.98	VP-FYELD
831145		N8309701	HWW	63.3	2.6	860	910	4			P-LVOL&BCRGR
831146	HATTON 24	C1017772	HRW	64.7	3.0	900	956	2			
831147	NUGAINES 24	C1013968	SWW						8.90	8.70	
831148		N8310301	HRW	63.7	4.1	875	869	3			P-BCRGR
831149		N8305101	HRW	63.2	3.1	930	1004	6			P-BCRGR
831150		N8305401	HRW	62.1	3.0	815	902	6			
831151		N8308201	SWW								
831152		N8308804	HRW	61.9	3.4	825	937	6	8.84	8.75	VP-FYELD
831153		N8309101	HRW	64.3	2.9	868	893	2			P-BCRGR
831154		N8303601	HRW	63.6	3.6	900	937	8			P-BCRGR
831155		N8303802	HRW	63.2	2.3	900	943	2			
831156		N8306301	HRW	64.2	2.8	905	930	2			
831157	HATTON 25	C1017772	HRW	64.0	3.0	900	956	2			
831158		N8303102	HRW	61.8	2.1	960	836	2			
831159		N8310401	HRW	64.8	3.6	835	866	3			Q-LVOL
831160	BELONGS TO NURSERY 1	N8300401	HRW	64.9	3.8	960	855	2			



NURSCO 30

LIND, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
831161	C1008500, MAHRATTA	6/K7900041	HRS	61.5	71.3	0.38	87.0	11.6	63.4	4H
831162	WA5949, CIANO//SON64/KL, REND	K7800658	HRS	63.2	69.9	0.39	85.1	9.6	62.4	8M
831163	E7130071-1, MAGNIF 41 MUT	6/K7900732	HRS	61.0	70.5	0.37	86.5	11.6	63.9	4H
831164	ID000043, N58/TC//TC/KF	5/K8000121	HRS	61.5	72.5	0.36	89.4	11.5	60.2	5H
831165	ID000043 N58/TC//TC/KF	5/K8000123	HRS	61.3	71.9	0.35	89.1	11.8	60.1	5H
831166	WA6118, WS#19B K75038	6/K8000797	HRS	63.5	70.3	0.40	84.9	10.2	61.9	3H
831167	WAMPUM	C1017691	HRS	61.5	70.4	0.41	84.6	10.6	62.1	3H
831168	K761011	6/K000751	HRS	61.9	71.2	0.39	86.6	10.9	61.6	4H
831169	RAGENI 15 K76010	K8100037	HRS	63.6	72.4	0.37	88.6	11.3	59.5	2H
831170	ID0000107/(K7205139, WA5261/3)	6/K8100259	HRS	63.8	71.0	0.37	87.1	11.8	59.9	2H
831171	ID0000107/(K7205139, WA5261...	5/K8100289	HRS	63.0	72.6	0.35	90.1	11.2	61.8	5H
831172	K72050708/JRAL"S"(B)K76	6/K8100338	HRS	60.6	70.7	0.41	84.9	12.2	63.0	2H
831173	WA602/(K76143, K7400222...	K8101108	HRS	62.5	73.2	0.37	89.6	11.3	60.7	3H
831174	(DND-7CXDAL-BB)PU"S"	1Bw80073	HRS	63.4	68.9	0.39	84.0	11.8	62.5	3H
831175	W/S 6107-11	W/S80078	SRS	62.1	65.6	0.37	80.8	10.1	57.5	3M
831176	K7205078/(C114193, RED...	5/K8105304	HRS	62.9	72.1	0.37	88.4	10.6	62.4	6H
831177	K7205078/(C114193, RED...	K8105321	HRS	63.1	71.0	0.41	85.0	9.5	61.5	5H
831178	K7205078/(C114193, RED...	6/K8105331	HRS	62.9	72.6	0.39	87.6	11.2	62.7	6H
831179	K7205088/SON64 X TZPP	6/K8105353	HRS	63.1	71.3	0.38	86.8	11.6	62.8	6H
831180	K7305095/JRAL"S"/B S.2	8105405	HRS	60.3	68.6	0.38	84.2	11.0	61.7	5H
831181	C114193/(WA618, WS#19B	6/K8105944	HRS	62.1	70.5	0.38	86.2	11.5	63.2	6H
831182	WAMPUM	C1017691	HRS	61.6	71.3	0.42	85.1	10.3	61.5	3H
831183	NK761011	5/NK000751	HRS	62.7	72.1	0.37	88.2	10.7	63.0	4H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

NURSCO 30

ADVANCED HARD RED SPRING

LIND, WA

C.F. KONZAK

CONTD. PAGE 1

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
831161	C1008500, MAHRATTA	K7900041	HRS	65.2	64.6	3.2	995	958	2	P-BCRGR
831162	WA5949, CIANO//SON64/KL, REND	K7800658	HRS	64.7	66.1	4.3	855	942	6	
831163	E7130071-1, MAGNIF 41 MUT	K7900732	HRS	65.2	64.6	2.6	1043	1006	2	
831164	ID000043, N58/TC//TC/KF	K8000121	HRS	64.4	63.9	4.8	1000	969	2	
831165	ID000043 N58/TC//TC/KF	K8000123	HRS	63.1	62.3	4.5	1010	960	1	
831166	WA6118, WS#19B K75038	K8000797	HRS	63.3	64.1	3.0	970	1020	2	
831167	WAMPUM	C1017691	HRS	59.9	50.3	3.6	988	1013	3	
831168	K761011	NK000751	HRS	62.7	62.8	3.6	1020	1026	2	
831169	RAGENI 15 K76010	K8100037	HRS	61.0	60.7	2.4	890	871	6	P-LVOL&BCRGR
831170	ID0000107/(K7205139, WA5261/3)	K8100259	HRS	63.4	62.6	2.1	990	940	3	Q-BCRGR
831171	ID0000107/(K7205139, WA5261...	K8100289	HRS	64.2	64.0	4.2	1030	1018	2	
831172	K72050708/JRAL"S"(B)K76	K8100338	HRS	64.4	63.2	2.5	1120	1046	2	
831173	WA602/(K76143, K7400222...	K8101108	HRS	62.2	61.9	3.3	955	936	5	P-BCRGR
831174	(DND-7CXDAL-BB)PU"S"	LBW80073	HRS	67.0	66.2	3.2	1000	950	2	Q-FYELD
831175	W/S 6107-11	W/S80078	SRS	56.8	57.7	1.7	1000	1054	4	P-MTIME&BCRGR
831176	K7205078/(C114193, RED...	K8105304	HRS	64.2	64.6	6.1	1055	1080	1	
831177	K7205078/(C114193, RED...	K8105321	HRS	62.7	64.2	4.6	1005	1098	4	P-BCRGR
831178	K7205078/(C114193, RED...	K8105331	HRS	65.1	64.9	7.5	1045	1033	2	
831179	K7205088/SON64 X TZPP	K8105353	HRS	65.6	65.0	5.8	1025	988	2	
831180	K7305095/JRAL"S"/B S.2	8105405	HRS	63.9	63.9	3.6	955	955	3	P-FYELD
831181	C114193/(WA618, WS#19B	K8105944	HRS	64.9	64.4	5.9	1015	984	2	
831182	WAMPUM	C1017691	HRS	59.5	60.2	3.3	935	978	3	
831183	NK761011	NK000751	HRS	63.9	64.2	3.4	1020	1039	2	

COMMENTS: Many of these selections (see footnotes) have good overall hard red spring milling and baking properties. See "Remarks" for deficiencies of other selections.

Q = Questionable; P = Poor



NURSCO 31

WA

K. BOYD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
831184 NK751			<u>6/</u> HRS	63.6	69.9	0.46	80.5	10.3	63.0	4H
831185 906-R K-3 RANCHES			<u>6/</u> HRS	63.7	71.1	0.46	81.5	11.4	62.4	4H
831186 906-R ANDERSON FIELD 1			<u>6/</u> HRS	62.8	70.1	0.43	81.6	11.9	62.6	4H
831187 906-R ANDERSON FIELD 2			HRS	61.0	66.0	0.41	76.5	14.6	64.1	5H

1/ Observed Values Corrected to 14% Moisture Basis.5/ Particularly Promising Overall Quality Characteristics.3/ Absorption at 14% Moisture corrected to 12% Protein. 6/ Promising Overall Quality Characteristics.4/ Observed Values Corrected to 12% Protein.

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
831184 NK751			HRS	63.5	65.2	2.8	910	1015	2	
831185 906-R K-3 RANCHES			HRS	65.5	66.1	3.0	940	977	2	
831186 906-R ANDERSON FIELD 1			HRS	66.2	66.3	3.5	950	956	2	
831187 906-R ANDERSON FIELD 2			HRS	69.9	67.3	3.5	1075	914	2	P-FYELD&LVOL

COMMENTS: These four hard red spring wheats were evaluated in co-operation with Western Plant Breeders. The environmental difference of the growing cites for 906-R become apparent in the flour milling characteristics. Anderson field #2 was very poor in flour yield, and while this sample had the highest protein it had a low loaf volume/protein. The other two 906-R cites are acceptable.



NURSCO 32

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC RMKS	
												1/	4/
831188	STEPHENS C1017596 (83-2)	84SWELI1	SWW	60.3	72.5	0.38	86.3	6.8	52.7	2L	9.02	9.00	
831189	DAWS (WA6099 OR C1017419) (83-3)	84SWELT2	SWW	60.4	71.0	0.40	83.1	6.1	54.7	2L	8.87	8.78	
831190	JACMAR WA6585 (83-5)	84SWELI3	CLUB	57.6	74.0	0.46	85.5	6.1	51.5	2L	9.59	9.52	
831191	HILL 81 C1017954 (83-6)	84SWELT4	SWW	60.3	73.8	0.42	86.6	6.1	53.0	2L	9.19	9.09	
831192	LEWJAIN (WA6363 OR C1017909) (83-7)	84SWELT5	SWW	61.2	73.0	0.37	86.7	5.5	54.6	2L	9.59	9.42	
831193	OWW72339 OR CW8113 (83-10)	6/84SWELI7	SWW	60.6	72.4	0.39	84.4	6.0	53.3	2L	8.99	8.88	Similar to Daws
831194	SWH72053-5H-2H-P (83-14)	6/84SWELT8	SWW	60.4	71.6	0.41	82.6	6.3	54.0	2L	8.92	8.85	Similar to Daws
831195	OWW74337C-1H-H-OH (83-18)	6/84SWELT9	SWW	61.5	72.1	0.41	83.2	7.3	53.6	2L	8.91	8.95	Similar to Daws
831196	OWW750144*-02P-OH (83-23)	6/84SWELT10	SWW	62.3	72.1	0.39	85.0	7.1	53.4	2L	8.84	8.85	Similar to Daws
831197	OWW74220F-1H-3P-OP (83-24)	84SWELT11	SWW	59.8	71.8	0.44	81.8	7.1	55.5	2L	8.70	8.71	Q-AH & CODI
831198	OWW74348D-1H-1P-OH (83-25)	6/84SWELT12	SWW	61.5	71.9	0.38	84.9	7.7	54.8	3L	8.71	8.79	
831199	SWM754666*-01H-2P-OP (83-29)	6/84SWELT13	SWW	62.6	74.6	0.40	88.2	7.6	54.8	3L	8.71	8.78	
831200	SWM754666*-03H-1H-OH (83-30)	84SWELT14	SWW	61.5	74.2	0.40	87.4	6.6	54.2	5L	8.72	8.68	Q-CODI
831201	SWM754666*-04H-1P-OP (83-31)	5/84SWELT15	SWW	61.5	74.0	0.41	86.2	7.0	53.3	5L	9.16	9.16	
831202	OWW71448- OR CW8416 (83-15)	6/84SWELT16	SWW	60.3	71.9	0.40	83.3	7.0	53.1	4L	8.97	8.97	

1/ Observed Values Corrected to 14% Moisture Basis

2/ Absorption at 14% Moisture Corrected to 7% Protein.

4/ Observed Values Corrected to 7% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: Most of these selections offer some promise for good overall quality. See "Remarks" column for deficiencies and questionable properties.

Q = Questionable



NURSCO 33

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/ 1/			3/ 3/	
831203	STEPHENS C1017596		SWW	61.1	71.9	0.38	84.3	8.1	54.0	3L
831204	HILL 81 C1017954		SWW	61.0	72.2	0.42	82.4	9.0	53.5	2M
831205	SWM754397 OR CW8417 (83-17)	84SWELT17	SWW	62.4	72.0	0.37	85.5	7.1	53.8	1L
831206	SWM754361 OR CW8418 (83-19)	84SWELT18	HWW	61.6	68.3	0.44	74.7	7.1	58.6	8L
831207	SWM742426 OR CW8419 (83-20)	84SWELT19	SWW	62.3	69.3	0.37	80.5	6.8	54.5	4L
831208	OWW76098 OR CW8421 (83-28)	84SWELT21	SWW	60.1	70.6	0.40	80.6	8.7	54.6	3M
831209	OWW76274 OR CW8422 (83-34)	6/ 84SWELT22	SWW	61.3	72.3	0.40	83.1	8.3	51.6	1L
831210	SWM754666 OR CW8423 (83-44)	5/ 84SWELT23	SWW	62.0	75.1	0.39	89.1	6.6	53.7	6L
831211	SWM754666 OR CW8424 (83-50)	84SWELT24	HWW	62.4	69.5	0.41	79.3	7.0	60.0	6L
831212	OWW750239 OR CW8425 (83-54)	84SWELT25	HWW	63.7	69.8	0.41	79.3	7.9	58.2	4L
831213	SWM766027 OR CW8426 (83-56)	84SWELT26	HWW	63.1	70.8	0.43	80.6	7.4	60.2	4L

LABNUM	VARIETY	IDNO	CLASS	CODI	CODIC	CAVOL	SCSOR	WTIN	NOSCO	RMKS
					4/ 4/					
831203	STEPHENS C1017596		SWW	8.72	8.74	1233	76.0	372	75	
831204	HILL 81 C1017954		SWW	8.74	8.85	1226	72.0	369	72	Q-CAVOL
831205	SWM754397 OR CW8417 (83-17)	84SWELT17	SWW	8.91	8.81	1188	69.0	383	74	Hard-P-CODI&CAVOL
831206	SWM754361 OR CW8418 (83-19)	84SWELT18	HWW	8.35	8.28	1152	68.0	347	75	Hard-P-CODI&CAVOL
831207	SWM742426 OR CW8419 (83-20)	84SWELT19	SWW	8.79	8.66	1230	74.0	356	73	Q-FYELD
831208	OWW76098 OR CW8421 (83-28)	84SWELT21	SWW	8.60	8.68	1193	71.0	370	71	Q-FYELD
831209	OWW76274 OR CW8422 (83-34)	84SWELT22	SWW	8.64	8.67	1236	73.0	376	64	Q-NOSCO
831210	SWM754666 OR CW8423 (83-44)	84SWELT23	SWW	8.64	8.48	1229	74.0	346	77	
831211	SWM754666 OR CW8424 (83-50)	84SWELT24	HWW	7.87	7.79	1122	64.0	340	75	Hard-P-FYELD&CODI
831212	OWW750239 OR CW8425 (83-54)	84SWELT25	HWW	7.79	7.78	1065	60.0	369	70	Hard-P-FYELD&CODI
831213	SWM766027 OR CW8426 (83-56)	84SWELT26	HWW	7.76	7.71	1098	64.0	351	69	Hard-P-FYELD&CODI

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall quality Characteristics.

COMMENTS: Note four of these selections are hard endosperm. See "Remarks" for other deficiencies.





NURSCO 34

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC	RMKS
						1/		1/	3/			4/	
831214	STEPHENS C1017596 (83-1)		SWW	60.8	70.0	0.38	86.0	7.9	53.2	2L	9.22	9.32	
831215	OWW780044*-2H-5H-OP (83-12)	6/84SWRPN 6	SWW	58.8	71.2	0.44	83.6	6.8	52.8	5L	9.10	9.08	
831216	OWW780047*-1P-2P-OP (83-14)	84SWRPN 7	SWW	61.6	71.3	0.42	85.3	7.4	53.6	2L	8.92	8.97	Q-CODI
831217	OWW780215*-3P-2H-OP (83-17)	6/84SWRPN 8	SWW	60.4	69.7	0.42	83.0	7.6	52.4	5L	9.25	9.32	
831218	OWW780269A-6H-1P-OP (83-19)	84SWRPN 9	SWW	62.0	69.6	0.43	82.5	6.9	53.2	2L	9.02	9.01	Q-MSCOR&CODI
831219	OWW780397A-2P-1P-OP (83-27)	6/84SWRPN 10	SWW	60.8	69.4	0.41	83.4	6.9	54.2	2L	9.25	9.24	
831220	OWW77016*-1P-1H-2H-OP (83-45)	84SWRPN 11	SWW	59.6	65.9	0.45	76.2	8.4	54.8	3L	8.91	9.07	P-FYELD
831221	OWW77079*-1H-1P-2S-OP (83-58)	84SWRPN 12	SWW	62.0	64.0	0.43	75.3	7.2	54.1	8L	8.92	9.06	P-FYELD
831222	OWW77083*-1H-5P-1S-OH (83-63)	84SWRPN 13	SWW	61.2	67.7	0.38	83.1	7.8	55.8	4L	8.92	9.01	P-FYELD
831223	OWW77095*-6H-1H-5H-OH (83-72)	84SWRPN 14	SWW	62.0	65.0	0.43	76.2	7.6	53.5	2L	9.41	9.48	P-FYELD
831224	OWW77095*-6H-4H-1H-OP (83-73)	84SWRPN 15	SWW	59.2	68.1	0.43	80.2	7.6	52.9	2L	9.29	9.35	Q-FYELD
831225	OWW77116*-3H-1P-1P-OP (83-75)	6/84SWRPN 16	SWW	60.8	68.6	0.41	82.4	7.5	52.9	2L	9.27	9.33	Q-FYELD
831226	OWW77116*-3H-1P-2P-OP (83-76)	84SWRPN 17	SWW	61.6	68.2	0.42	81.4	7.4	52.2	2L	8.95	8.99	Q-FYELD&CODI
831227	OWW77116*-8H-1P-1H-OP (83-77)	84SWRPN 18	SWW	58.0	67.3	0.47	77.0	8.8	52.1	2M	9.20	9.40	P-FYELD
831228	OWW77116*-10H-1H-1S-OP (83-78)	84SWRPN 19	SWW	60.0	68.3	0.42	81.4	7.7	53.8	2L	9.51	9.59	Q-FYELD Exc. CODI
831229	OWW77116*-10H-2S-1P-OP (83-81)	6/84SWRPN 20	SWW	60.4	70.0	0.51	78.0	9.0	49.7	2M	9.14	9.36	High FASH
831230	OWW77128*-1H-1P-1S-OP (83-84)	6/84SWRPN 21	SWW	59.2	68.6	0.40	82.8	7.5	52.3	5L	9.30	9.35	
831231	OWW77148*-6H-1H-1S-OP (83-87)	84SWRPN 22	SWW	60.8	65.4	0.38	79.9	7.8	51.7	5L	9.16	9.25	P-FYELD
831232	OWW77148*-6H-1H-1S-OP (83-88)	84SWRPN 23	SWW	58.0	64.9	0.40	78.4	7.8	51.7	5L	9.35	9.44	P-FYELD
831233	OWW77175*-9P-4P-2S-OP (83-94)	84SWRPN 24	SWW	57.2	66.8	0.41	79.9	7.6	51.9	5L	8.82	8.89	P-FYELD
831234	OWW77235*-5H-3S-2S-OP (83-97)	84SWRPN 25	SWW	59.2	68.3	0.41	81.7	7.9	51.5	2L	9.36	9.46	Q-FYELD
831235	OWW77260*-8P-1P-3S-OP (83-103)	6/84SWRPN 26	SWW	62.0	69.9	0.41	84.3	8.4	52.4	3L	9.30	9.45	
831236	OWW77260*-9P-1P-1S-OP (83-105)	6/84SWRPN 27	SWW	62.0	68.5	0.40	83.0	7.9	53.7	3L	9.09	9.19	
831237	OWW77293*-2P-1H-2S-OP (83-107)	6/84SWRPN 28	SWW	59.2	68.5	0.41	82.4	8.1	52.9	5L	9.25	9.37	Q-FYELD
831238	OWW77326*-2H-1P-2H-OH (83-108)	84SWRPN 29	SWW	60.4	65.3	0.39	79.5	7.8	54.0	3L	8.81	8.90	P-FYELD&CODI
831239	OWW77328*-1H-3H-1P-OP (83-109)	84SWRPN 30	SWW	60.0	67.3	0.34	85.2	7.1	54.7	8L	8.69	8.70	P-FYELD&CODI
831240	OWW77328*-1H-1P-1H-OH (83-110)	6/84SWRPN 31	SWW	60.0	67.1	0.34	84.8	7.7	54.9	3L	8.96	9.04	Q-FYELD
831241	OWW77328*-1H-4P-2S-OP (83-111)	84SWRPN 32	SWW	60.4	68.4	0.34	86.3	7.1	53.0	3L	8.91	8.92	Q-CODI
831242	OWW77332*-4H-4P-1S-OP (83-114)	5/84SWRPN 33	SWW	62.4	72.3	0.34	91.6	7.5	53.1	3L	9.04	9.09	
831243	OWW77339*-1H-2H-2H-OP (83-116)	6/84SWRPN 34	SWW	61.2	70.2	0.38	86.3	7.4	53.7	3L	9.01	9.06	
831244	OWW77385*-3H-2P-1P-OH (83-124)	84SWRPN 35	SWW	58.0	66.9	0.40	81.0	6.8	53.7	5L	9.06	9.04	P-FYELD
831245	OWW77385*-4H-1H-1P-OH (83-127)	84SWRPN 36	SWW	60.8	67.6	0.41	81.0	7.4	55.0	6L	8.96	9.01	P-FYELD
831246	OWW77385*-4H-1H-2P-OP (83-128)	84SWRPN 37	SWW	61.2	68.6	0.41	82.6	6.8	55.2	6L	9.01	8.99	Q-CODI&FYELD
831247	OWW77385*-4H-1H-3P-OH (83-129)	84SWRPN 38	SWW	62.0	68.1	0.39	82.7	7.1	54.9	4L	9.06	9.07	Q-CODI&FYELD
831249	OWW77385*-6H-1S-1S-OP (83-135)	84SWRPN 40	SWW	59.2	65.0	0.42	77.2	6.7	53.7	8L	9.22	9.19	P-FYELD

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 7% Protein.

4/ Observed Values Corrected to 7% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 34

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC RMKS	
												1/	4/
831250	OWW77385*-3P-1H-2S-OH (83-142)	84SWRPN 41	SWW	61.6	63.9	0.47	72.2	9.6	54.8	8M	8.79	9.07	P-FYELD
831251	OWW77415*-2P-1S-1P-OP (83-146)	5/84SWRPN 42	SWW	59.6	71.0	0.39	86.9	7.1	52.9	8L	8.49	9.50	Q-FYELD
831252	OWW77510*-6H-1S-2P-OP (83-156)	84SWRPN 43	SWW	63.2	67.5	0.42	80.3	7.7	54.4	3L	8.95	9.03	Q-FYELD
831253	OWW77510*-7H-1S-1S-OH (83-157)	6/84SWRPN 44	SWW	64.4	68.6	0.39	83.4	7.4	54.9	8L	9.14	9.14	Q-FYELD
831254	OWW77510*-7H-4S-1P-OP (83-158)	6/84SWRPN 45	SWW	62.8	68.7	0.41	82.7	7.4	54.0	4L	9.22	9.27	Q-FYELD
831255	OWW77511*-3P-2H-1S-OH (83-167)	84SWRPN 46	SWW	64.0	67.9	0.42	80.9	8.6	54.4	6L	8.95	9.13	P-FYELD
831256	OWW77511*-3P-3H-2H-OP (83-168)	84SWRPN 47	SWW	64.0	68.2	0.40	82.3	8.3	56.0	4L	8.57	8.72	P-CODI
831257	OWW77511*-3P-4H-1S-OH (83-169)	84SWRPN 48	SWW	62.4	63.4	0.40	76.6	8.5	55.4	8L	8.94	9.10	VP-FYELD
831258	OWW77511*-4P-1H-2H-OP (83-171)	6/84SWRPN 49	SWW	64.4	70.7	0.35	88.9	9.4	55.9	6L	8.52	8.79	Q-CODI
831259	OWW77580A-1S-1H-2S-OH (83-177)	84SWRPN 50	SWW	61.6	67.9	0.43	80.3	7.7	53.7	5L	9.06	9.14	Q-FYELD
831260	OWW77580A-1S-3H-1P-OP (83-181)	6/84SWRPN 51	SWW	60.4	68.9	0.44	81.0	7.3	53.0	2L	9.10	9.13	Q-FYELD
831261	OWW77580A-1S-3S-1H-OH (83-182)	84SWRPN 52	SWW	61.6	68.6	0.39	83.7	7.3	53.5	3L	9.12	9.16	Q-FYELD
831262	OWW77585F-1H-2P-1S-OH (83-189)	84SWRPN 53	SWW	59.2	64.8	0.44	75.4	8.3	54.6	3L	8.97	9.12	VP-FYELD
831263	OWW77585F-1H-2S-2P-OP (83-190)	84SWRPN 54	SWW	58.0	63.0	0.41	75.2	7.6	55.0	4L	8.97	9.04	VP-FYELD
831264	OWW77595C-3H-4P-3S-OH (83-195)	84SWRPN 55	SWW	60.4	66.4	0.41	79.8	7.4	54.4	2L	8.94	8.98	VP-FYELD
831265	OWW77596A-1S-2S-2S-OP (83-196)	84SWRPN 56	SWW	58.0	67.3	0.43	79.2	6.5	52.5	1L	8.87	8.82	P-FYELD
831266	OWW77632A-1P-2S-1S-OH (83-215)	84SWRPN 57	SWW	63.2	67.6	0.41	81.2	7.3	53.3	2L	9.24	9.27	P-FYELD
831267	OWW77632A-2S-2S-1S-OH (83-216)	6/84SWRPN 58	SWW	61.6	69.7	0.38	85.8	6.9	53.1	1L	9.22	9.21	VP-FYELD
831268	OWW77632A-8S-2P-1H-OH (83-218)	84SWRPN 59	SWW	62.8	65.0	0.37	80.5	7.6	53.7	2L	9.26	9.33	VP-FYELD
831269	OWW76123*-01H-1H-4S-OH (83-222)	84SWRPN 60	SWW	62.4	67.9	0.44	79.4	7.5	53.8	4L	9.12	9.18	P-FYELD
831270	OWW76123*-04P-2H-1H-OH (83-224)	6/84SWRPN 61	SWW	62.0	68.7	0.40	83.1	6.9	53.9	4L	9.34	9.33	P-FYELD
831271	OWW76012*-08P-2H-1P-OP (83-227)	84SWRPN 62	SWW	60.8	65.8	0.41	78.5	7.4	53.7	4L	9.01	9.06	P-FYELD
831272	OWW76024*-02H-1H-3S-OH (83-228)	84SWRPN 63	SWW	60.0	69.0	0.35	87.0	7.3	55.8	4L	8.69	8.72	P-CODI
831273	OWW76031*-02H-1H-3H-OH (83-236)	84SWRPN 64	SWW	60.4	67.5	0.45	78.7	7.0	54.9	4L	9.20	9.20	P-FYELD
831274	OWW76046*-02P-1H-1P-OP (83-250)	6/84SWRPN 65	SWW	62.4	67.5	0.38	83.1	8.3	57.3	4L	9.06	9.21	Q-FYELD
831275	OWW76049*-01H-2H-2S-OP (83-252)	84SWRPN 66	SWW	60.0	64.8	0.32	83.2	7.8	50.6	1L	9.46	9.55	P-FYELD
831276	OWW76049*-01H-4H-1H-OP (83-255)	6/84SWRPN 67	SWW	60.4	67.3	0.31	87.0	7.2	50.7	1M	9.21	9.23	Q-FYELD
831277	OWW76049*-01H-4H-3H-OH (83-256)	84SWRPN 68	SWW	63.6	66.0	0.31	85.1	7.7	49.6	1M	9.37	9.45	P-FYELD
831278	OWW76062*-06P-1P-1P-OP (83-271)	5/84SWRPN 69	SWW	62.4	71.1	0.39	87.1	7.4	50.9	2M	9.24	9.28	P-FYELD
831279	OWW76068*-03P-1P-1P-OH (83-276)	84SWRPN 70	SWW	61.2	65.3	0.48	73.8	6.6	52.4	3L	9.04	8.99	P-FYELD
831280	OWW76085*-10P-4H-2H-OP (83-310)	6/84SWRPN 71	SWW	59.6	68.5	0.41	82.3	7.1	52.2	4L	9.22	9.24	Q-FYELD
831281	OWW76097*-10H-1H-1H-OP (83-312)	84SWRPN 72	SWW	62.0	67.8	0.44	79.7	6.1	53.4	4L	8.84	8.74	Q-FYELD
831282	OWW76098*-04P-1H-2P-OP (83-315)	6/84SWRPN 73	SWW	61.6	68.8	0.40	83.3	7.0	55.8	4L	9.05	9.05	Q-FYELD
831283	OWW750241*-01H-1H-1P-OP (83-364)	84SWRPN 74	SWW	59.2	68.9	0.40	83.4	6.4	55.0	4L	8.94	8.87	Q-CODI
831284	SWW789152*-2P-2P-OH (83-391)	84SWRPN 75	SWW	59.6	68.6	0.41	82.5	7.2	52.6	5L	9.29	9.31	Q-FYELD





NURSCO 34

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC	RMKS
					1/	1/		1/	3/			4/	
831285	SWM789206*-2P-1P-OH (83-393)	6/ 84SWRPN 76	SWW	60.8	70.1	0.45	81.9	7.2	51.6	4L	9.05	9.07	Q-MSCOR
831286	PBT79-2H-1P-1P-OP (83-417)	5/ 84SWRPN 77	SWW	60.8	71.4	0.37	88.2	6.7	51.1	3L	9.27	9.24	
831287	SWM777829*-4P-1P-1S-OP (83-448)	5/ 84SWRPN 78	SWW	62.4	71.7	0.36	89.3	7.1	52.4	4L	9.62	9.64	Excellent CODI
831288	SWM777970*-1P-2H-1S-OH (83-453)	6/ 84SWRPN 79	SWW	60.4	72.6	0.40	88.0	5.8	55.0	4L	9.10	8.97	
831289	SWM765598*-04H-1H-4H-OH (83-474)	6/ 84SWRPN 80	SWW	61.2	66.6	0.38	81.5	6.3	53.4	2L	9.40	9.32	P-FYELD
831290	SWM765598*-04H-1H-3P-OH (83-475)	84SWRPN 81	SWW	62.8	66.5	0.37	82.2	7.0	53.7	3L	9.27	9.27	P-FYELD
831291	SWM765612*-01P-1H-2P-OH (83-484)	6/ 84SWRPN 82	HWW	63.2	72.0	0.36	89.5	7.5	52.1	2M	8.96	9.02	
831292	SWM765704*-11P-2H-3P-OP (83-487)	84SWRPN 83	SWW	62.8	64.8	0.40	77.9	7.5	52.8	3L	9.06	9.12	P-FYELD
831293	SWM766184*-04P-1P-2S-OH (83-495)	84SWRPN 84	SWW	60.4	66.1	0.41	79.4	7.7	52.1	2L	9.24	9.31	P-FYELD
831294	SWM766290*-04H-1P-2H-OH (83-496)	5/ 84SWRPN 85	SWW	63.2	71.4	0.41	85.7	6.9	52.5	2L	9.26	9.25	
831295	SWM766290*-04H-1P-3S-OP (83-498)	6/ 84SWRPN 86	SWW	62.0	69.1	0.43	82.0	7.1	52.3	2L	9.16	9.17	Q-MSCOR
831296	SWM753995*-05H-1P-1P-OH (83-521)	84SWRPN 87	SWW	61.2	64.8	0.39	78.7	6.3	55.7	4L	9.06	8.99	P-FYELD&CODI
831297	SWM754308*-01H-1H-1H-OH (83-525)	84SWRPN 88	SWW	61.6	67.0	0.40	81.2	7.4	52.9	2L	9.07	9.12	Q-FYELD
831298	SWM754666*-03P-3P-2H-OH (83-532)	84SWRPN 89	SWW	62.4	67.6	0.40	81.8	7.0	52.6	4L	9.22	9.22	Q-FYELD
831299	SWM754666*-03P-3P-2H-OH (83-533)	6/ 84SWRPN 90	SWW	62.4	68.6	0.39	83.4	6.9	52.7	4L	9.05	9.04	Q-FYELD
831300	SWM789206*-06P-2H-OH (83-537)	84SWRPN 91	SWW	59.2	66.6	0.39	81.0	7.3	51.7	2L	8.96	9.00	P-FYELD
831301	SWM789206*-06H-3H-OH (83-538)	84SWRPN 92	HWW	59.2	70.2	0.47	80.2	7.3	53.1	2M	8.53	8.56	VP-CODI - HWW
831302	OWW72409-3-09-1S-OP (83-548)	84SWRPN 93	SWW	58.8	63.9	0.38	78.4	6.8	53.0	4L	9.39	9.37	VP-FYELD
831303	YE611-1-1-3-OE (83-557)	84SWRPN 94	SWW	60.4	64.9	0.39	79.1	7.5	54.5	4L	9.09	9.14	VP-FYELD
831304	YE308-12-1-3-1-OE (83-563)	84SWRPN 95	HWW	63.2	70.6	0.39	86.2	7.2	55.7	5L	8.70	8.72	P-CODI - HWW
831305	SWM789783*-1H-HHH11 (83-570)	84SWRPN 96	HWW	61.6	70.1	0.45	81.6	7.0	56.3	2L	8.72	8.72	P-CODI - HWW
831306	OWW780043*-HRH-HHH 1 (83-607)	84SWRPN 97	HWW	58.8	73.0	0.42	87.4	6.4	52.7	4L	8.89	8.82	Q-CODI - HWW
831307	OWW780047*-HRH-HHH 2 (83-611)	84SWRPN 98	HWW	58.4	70.0	0.46	80.6	6.6	58.2	4L	8.54	8.49	VP-CODI - HWW
831308	WEKF28001-HRHH 4 (83-616)	84SWRPN 99	SWW	60.4	67.2	0.40	81.3	7.0	54.3	3L	8.95	8.95	Q-FYELD
831309	WEKF28008-HRHH 1 (83-626)	6/ 84SWRPN100	SWW	61.2	71.8	0.39	87.8	5.9	55.9	4L	9.22	9.10	
831310	WEKF28008-HRHH13 (83-638)	6/ 84SWRPN101	SWW	62.4	69.8	0.35	87.7	6.4	55.0	4L	9.17	9.11	
831311	WEKF28008-HRHH14 (83-639)	6/ 84SWRPN102	SWW	62.4	69.7	0.34	87.9	6.6	54.8	4L	9.00	8.96	Q-CODI
831312	SWM789783*-1H-HHH10 (83-643)	84SWRPN103	SWW	60.8	65.7	0.38	80.9	6.0	56.2	4L	8.79	8.68	P-FYELD&CODI
831313	PB820076 (83-8)	6/ 84SWRPN104	SWW	60.0	69.2	0.39	84.6	5.8	54.5	4L	9.20	9.07	
831314	PB820207 (83-11)	6/ 84SWRPN105	SWW	60.0	67.6	0.35	84.8	6.2	53.2	4L	9.50	9.41	Q-FYELD
831315	PB820054 (83-12)	6/ 84SWRPN106	SWW	60.4	69.4	0.39	84.7	7.3	55.0	4L	9.15	9.18	
831316	PB820156 (83-14)	6/ 84SWRPN107	SWW	60.4	69.5	0.38	85.3	6.5	54.0	4L	9.15	9.09	
831317	PB820187 (83-15)	6/ 84SWRPN108	SWW	62.0	68.9	0.39	83.9	7.1	55.3	4L	9.12	9.14	
831318	PB820074 (83-16)	84SWRPN109	SWW	58.8	67.7	0.42	80.5	7.1	54.2	3L	9.10	9.11	Q-FYELD
831319	PB820149 (83-19)	84SWRPN110	SWW	61.2	68.2	0.41	81.7	7.4	53.7	4L	9.09	9.13	Q-FYELD





NURSCO 34

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH		MSCOR	FPROT	MABSC		MTYPE	CODI	CODIC		RMKS
						1/				1/	3/			4/		
831320	PB820106 (83-21)	6/84SWRPN111	SWM	60.8	69.6	0.41		83.8	7.7	53.4	4L		9.36		9.44	
831321	PB820007 (83-23)	6/84SWRPN112	SWM	61.2	68.6	0.40		82.9	7.4	53.4	4L		9.29		9.33	Q-MSCOR
831322	PB820132 (83-25)	6/84SWRPN113	SWM	60.4	69.8	0.44		82.2	7.4	53.5	4L		9.20		9.24	Q-MSCOR
831323	PB820006 (83-26)	84SWRPN114	SWM	60.4	68.9	0.43		81.5	6.3	55.2	4L		9.24		9.16	Q-MSCOR
831324	KG820040 (83-53)	6/84SWRPN115	SWM	60.0	69.9	0.43		82.6	6.3	54.3	4L		9.29		9.21	Q-MSCOR
831325	KG820133 (83-54)	6/84SWRPN116	SWM	58.4	70.6	0.46		81.7	6.6	54.3	4L		9.22		9.18	P-FASH
831326	KG820053 (83-55)	6/84SWRPN117	SWM	60.8	69.4	0.44		81.5	6.7	54.4	4L		9.19		9.15	Q-FYELD
831327	PB820187 (83-6)	84SWRPN118	SWM	61.2	69.1	0.41		83.0	7.0	54.5	4L		8.97		8.97	Q-FYELD&CODI
831328	PB820149 (83-4)	6/84SWRPN119	SWM	61.2	68.9	0.41		82.7	6.7	54.7	4L		9.20		9.17	Q-MSCOR
831329	PB820094 (83-5)	5/84SWRPN120	SWM	60.0	71.1	0.42		84.7	7.7	51.7	4L		9.42		9.50	
831330	PB820132 (83-9)	84SWRPN121	SWM	60.4	68.8	0.44		80.5	6.9	54.0	4L		9.31		9.30	Q-MSCOR
831331	M820619 (83-3)	6/84SWRPN122	SWM	61.2	70.4	0.39		86.0	6.9	52.2	4L		9.40		9.39	
831332	M820647 (83-9)	5/84SWRPN123	SWM	61.6	71.7	0.36		89.5	6.5	54.4	4L		9.27		9.22	
831333	M820648 (83-11)	5/84SWRPN124	SWM	60.4	70.5	0.40		85.2	6.4	53.0	4L		9.41		9.35	
831334	M820687 (83-21)	6/84SWRPN125	SWM	60.0	70.1	0.41		84.3	6.7	57.2	4L		9.06		9.03	
831335	OWW77083*-1H-2P-2P-OP (83-61)	84SWRPN126	SWM	61.2	67.3	0.43		79.4	8.1	53.2	4L		9.02		9.15	P-FYELD
831336	OWW77095*-6H-1H-1H-OP (83-70)	84SWRPN127	SWM	61.2	67.8	0.48		76.6	7.2	54.7	3L		9.47		9.50	P-FYELD
831337	OWW77385*-2H-1H-2S-OH (83-123)	84SWRPN128	SWM	62.4	68.4	0.41		82.3	7.2	54.7	3L		9.19		9.21	Q-FYELD
831338	OWW77385*-4H-1P-1S-OH (83-131)	84SWRPN129	SWM	58.8	68.8	0.47		78.8	7.6	54.2	4L		9.00		9.07	P-MSCOR
831339	OWW77385*-6H-1S-2P-OH (83-134)	84SWRPN130	SWM	58.0	63.0	0.48		70.7	8.1	53.0	4L		8.96		9.08	VP-MSCOR
831340	OWW77580A-1S-1H-1S-OH (83-176)	84SWRPN131	SWM	61.2	69.0	0.46		79.8	8.2	52.7	3L		8.86		8.99	Q-MSCOR&CODI
831341	OWW77580A-5S-1P-2S-OP (83-185)	84SWRPN132	SWM	58.0	65.6	0.49		73.6	8.3	53.7	3M		8.91		9.06	P-MSCOR
831342	OWW76024*-04P-1H-1P-OH (83-229)	84SWRPN133	SWM	56.0	69.4	0.48		78.7	7.4	54.1	4L		9.41		9.46	P-MSCOR&FASH
831343	OWW76024*-04P-1H-1P-OH (83-230)	84SWRPN134	SWM	57.2	70.0	0.48		79.6	7.7	53.8	4L		9.41		9.49	P-MSCOR&FASH
831344	OWW76027*-04H-1H-2P-OH (83-234)	84SWRPN135	SWM	60.0	68.8	0.42		82.1	7.1	55.7	4L		8.95		8.96	Q-CODI
831345	SW0780045A-1P-1P-OP (83-407)	84SWRPN136	SWM	61.2	66.7	0.40		80.5	8.1	53.3	3L		9.24		9.36	P-FYELD

COMMENTS: Many of these selections had poor to marginal milling properties (low flour yield and/or high flour ash). Please see "Remarks" column for these and other deficiencies.

VP = Very Poor; P = Poor; Q = Questionable



NURSCO 35

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC	RMKS
						<u>1/</u>		<u>1/</u>	<u>3/</u>			<u>4/</u>	
831346	SW0780271A-1H-2P-OP (83-411)	84SWRPN137	SWW	62.4	66.4	0.36	82.9	7.3	52.2	2L	9.39	9.42	P-FYELD

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 7% Protein.

4/ Observed Values Corrected to 7% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: See "Remarks" column for deficiencies.



NURSCO 36

LIND, CONNELL WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
831347 WAMPUM		C1017691	HRS	61.6	70.7	0.42	83.9	11.7	63.6	4H
831348 NK761011		6/ NK000751	HRS	62.4	70.7	0.39	84.9	12.1	62.9	4H
831349 VH070251/TWIN		5/ K7901395	HRS	62.5	72.3	0.37	87.9	11.3	61.9	3H
831350 E7130071-1/(C1008500, MAH		6/ K7900100	HRS	61.4	72.2	0.38	87.2	11.8	62.4	3H
831351 E7130071-1/(C1008500, MAH		5/ K7900103	HRS	60.9	70.2	0.38	83.8	12.6	65.4	5H
831352 E7130071-1/(C1008500, MAH		6/ K7900115	HRS	59.5	70.5	0.38	85.1	12.2	62.3	3H
831353 K73772/(ID000043, N58...		6/ K7900748	HRS	63.3	71.6	0.39	86.8	12.2	61.0	4H
831354 K73469/(ID000043, N58...		K8000349	HRS	61.4	68.9	0.38	83.1	11.9	62.6	2H
831355 K73493/SARIC 70, K74424		K8000392	HRS	60.9	70.4	0.39	84.7	11.9	60.6	5H
831356 K74096/(C117267, BORAH...		K8000770	HRS	61.6	71.8	0.40	86.6	12.5	62.3	3H
831357 K74096/(C117267, BORAH...		K8000784	HRS	62.9	72.1	0.40	86.6	11.4	62.1	2H
831358 K74096/(WA6118, WS198...		6/ K8000797	HRS	63.3	69.4	0.42	81.8	11.3	64.2	5H
831359 K74118/C117267, BORAH		K8000900	HRS	63.5	71.5	0.36	87.9	11.2	62.3	2H
831360 KK74153/K74093, WA6096		5/ K8000946	HRS	62.3	70.5	0.37	85.7	12.0	64.6	4H
831361 WA6171/(K74027, VJ720503...		5/ K8001209	HRS	62.3	72.1	0.44	85.7	11.1	62.5	4H
831362 WA6171/(K74027, VJ720503...		K8001214	HRS	61.3	73.8	0.44	88.0	11.2	61.8	2H
831363 WA6171/(K74032, VJ7206...		6/ K8001234	HRS	63.1	72.0	0.39	87.0	11.8	61.4	4H
831364 (219321/CH53-ANXGB56)A		5/ K8001257	HRS	63.2	71.2	0.40	86.0	12.4	62.3	4H
831365 JARAL"S"(B)/(K720511...		6/ K8001307	HRS	60.4	70.7	0.43	82.5	12.0	65.0	4H
831366 JARAL"S"(B)/(K720511...		5/ K8001309	HRS	61.1	69.9	0.43	81.6	11.9	63.9	5H
831367 MARCO JUAREZ INIA/(K720...		K8001336	HRS	61.5	69.0	0.44	81.3	13.8	63.7	4H
831368 K7205209//VH073324, C59287		K8001394	HRS	62.5	72.7	0.40	88.0	11.2	62.0	5H
831369 K7205209//VH073324, C59287		6/ K8001424	HRS	62.2	70.5	0.41	83.8	11.7	62.3	5H
831370 K7205209//VH073324, C59287		K8001436	HRS	63.4	69.7	0.40	84.1	10.8	61.9	5H
831371 WAMPUM/TIFTON 3725		HF830002	HRS	61.9	71.2	0.45	83.8	13.1	63.5	3H
831372 WS-503		WS000503	HRS	62.2	71.0	0.47	83.9	12.4	63.7	2H

1/ Observed Values Corrected to 14% Moisture Basis.

5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

6/ Promising Overall Quality Characteristics.

4/ Observed Values Correct to 12% Protein



NURSCO 36

LIND, CONNELL WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
831347 WAMPUM		C1017691	HRS	63.5	63.8	3.8	1048	1067	4	
831348 NK761011		NK000751	HRS	64.2	64.1	3.3	1060	1054	3	
831349 VH070251/TWIN		K7901395	HRS	63.4	64.1	2.7	1025	1068	2	
831350 E7130071-1/(C1008500, MAH		K7900100	HRS	63.9	64.1	2.8	1023	1035	3	
831351 E7130071-1/(C1008500, MAH		K7900103	HRS	68.7	68.1	3.8	1043	1006	2	
831352 E7130071-1/(C1008500, MAH		K7900115	HRS	64.7	64.5	2.7	1020	1008	2	
831353 K73772/(ID000043, N58...		K7900748	HRS	63.9	63.7	4.1	1010	998	3	
831354 K73469/(ID000043, N58...		K8000349	HRS	64.7	64.8	3.1	1000	1006	4	P-BCRGR&FYELD
831355 K73493/SARIC 70, K74424		K8000392	HRS	65.7	65.8	4.1	980	986	5	P-BCRGR
831356 K74096/(C117267, BORAH...		K8000770	HRS	65.5	65.0	3.4	1085	1054	4	P-BCRGR
831357 K74096/(C117267, BORAH...		K8000784	HRS	63.7	64.3	2.2	980	1017	4	P-BCRGR
831358 K74096/(WA6118, WS198...		K8000797	HRS	65.7	66.4	3.7	1005	1048	2	
831359 K74118/C117267, BORAH		K8000900	HRS	62.7	63.5	2.0	975	1025	4	P-BCRGR
831360 KK74153/K74093, WA6096		K8000946	HRS	65.8	65.8	2.6	1060	1060	2	
831361 WA6171/(K74027, VJ720503...		K8001209	HRS	65.3	66.2	4.0	968	1024	2	
831362 WA6171/(K74027, VJ720503...		K8001214	HRS	62.2	63.0	2.7	975	1025	6	P-BCRGR
831363 WA6171/(K74032, VJ7206...		K8001234	HRS	64.4	64.6	3.6	975	987	2	
831364 (219321/CH53-ANXGB56)A		K8001257	HRS	65.9	65.5	3.5	1010	985	2	
831365 JARAL"S"(B)/(K720511...		K8001307	HRS	67.7	67.7	3.9	993	993	2	
831366 JARAL"S"(B)/(K720511...		K8001309	HRS	67.0	67.1	5.4	1010	1016	2	
831367 MARCO JUAREZ INIA/(K720...		K8001336	HRS	68.7	66.9	3.9	1085	973	3	Q-FYELD&BCRGR
831368 K7205209//VH073324, C59287		K8001394	HRS	63.4	64.2	4.5	990	1040	4	P-BCRGR
831369 K7205209//VH073324, C59287		K8001424	HRS	64.7	65.0	5.3	1025	1044	3	
831370 K7205209//VH073324, C59287		K8001436	HRS	64.4	65.6	3.7	895	969	6	P-BCRGR
831371 WAMPUM/TIFTON 3725		HF830002	HRS	67.8	66.7	3.1	988	920	3	P-LVOL&BCRGR
831372 WS-503		WS000503	HRS	66.3	65.9	2.2	1055	1030	4	P-BCRGR

P = Poor; Q = Questionable





NURSCO 37

PULLMAN, R. SLOPE WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS	BABSC 3/	MTIME
831373	FIELDER	C1017268	SWS	61.8	68.8	0.38	80.7	10.3	56.4	3H			
831374	URQUIE	C1017413	SWS	61.8	69.7	0.38	81.0	8.9	54.3	2M			
831375	DIRKWIN	C1017745	SWS	60.8	70.7	0.41	81.7	9.5	52.4	1M			
831376	WAVERLY	C1017911	SWS	62.2	71.1	0.39	84.1	10.1	54.0	2M			
831377	ID000065/(WA006021, BRONS/KOELZ-7941... 6/	K8005049	SWS	62.3	69.0	0.36	81.6	10.1	54.3	2M			
831378	ID000065/(WA006021, BRONS/KOELZ-7941... 6/	K8005063	SWS	63.4	68.1	0.32	81.9	10.0	53.8	3M			
831379	POTAM 70/(WA006021, BRONS/KOELZ-7941... 6/	K7905147	SWS	62.5	68.5	0.40	79.3	10.0	51.9	3M			
831380	K74129/POTAM 70	6/	SWS	62.9	70.2	0.39	81.5	9.2	52.2	3L			
831381	K74131/POTAM 70	6/	SWS	63.1	70.5	0.36	83.7	9.9	52.0	3L			
831382	K74135/POTAM 70	6/	SWS	63.3	69.6	0.37	82.3	9.2	54.2	6L			
831383	K74135/POTAM 70	K8005461	SWS	62.5	71.0	0.39	83.0	9.6	55.2	6L			
831384	K74135/POTAM 70	6/	SWS	62.6	72.1	0.36	86.7	9.9	55.2	4L			
831385	K7205209/(VH073414, C59287/0/1834/17... 6/	K8006366	SWS	63.7	67.4	0.39	78.4	9.7	52.6	3M			
831386	K7205209/(VH073414, C59287/0/1834/17... 6/	K8006368	HWS	63.4	69.1	0.38	81.9	10.7	59.1	4H	65.5	64.8	3.8
831387	K74132/POTAM 70	K8005395	SWS	63.6	68.2	0.37	80.0	9.3	54.0	7M			
831388	K74469/POTAM 70	K8005860	SWS	62.6	69.1	0.39	80.2	10.2	54.2	4M			
831389	K74469/POTAM 70	6/	SWS	62.8	70.9	0.39	83.7	10.0	54.1	3M			
831390	K74560/POTAM 70	6/	SWS	63.0	70.7	0.38	83.0	11.1	52.4	2M			
831391	WA6171/(C1014588, TWIN)	K8006224	HWS	63.2	68.4	0.39	81.5	10.6	58.1	6M	63.9	63.3	3.0
831392	PROSPUR/(K750050, K70340/3/ERA//ATL66... 6/	K8006596	SWS	60.7	69.0	0.33	82.9	10.4	52.9	2M			
831393	K78504/K74129-33/K7806645, K79299-10	HF820054	SWS	62.5	67.9	0.40	77.5	9.6	52.4	3M			
831394	K78504/K74129-33/K7806645, K79299-11	5/	SWS	62.0	71.1	0.40	82.9	9.7	51.4	3M			
831395	WSMP-4120	5/	SWS	63.6	70.7	0.39	81.2	9.4	50.6	2M			
831396	81AS-3013	NK790655	HWS	60.4	68.7	0.41	81.1	9.8	56.5	3M	57.5	57.7	1.4

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 37

PULLMAN, R. SLOPE WA

C. F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	LVOL	LVOLC	BCRGR	CODI	CODIC	CAVOL	SCSOR	WTIN	NOSCO	RMKS
					4/			4/					
831373	FIELDER	C1017268	SWS				8.15	8.18	1225	67.0	368	69 P-CODI&CAVOL	
831374	URQUIE	C1017413	SWS				9.04	8.92	1355	77.0	386	72	
831375	DIRKWIN	C1017745	SWS				8.92	8.87	1320	78.0	390	66 P-Noodle Score	
831376	WAVERLY	C1017911	SWS				8.84	8.85	1325	77.0	381	77	
831377	ID000065/(WA00065/(WA006021, BRONS/KOELZ-7941...	K8005049	SWS				8.91	8.92	1405	81.0	381	73	
831378	ID000065/(WA00065/(WA006021, BRONS/KOELZ-7941...	K8005063	SWS				8.97	8.97	1360	78.0	376	79 Q-FYELD	
831379	POTAM 70/(WA006021, BRONS/KOELZ-7941...	K7905147	SWS				8.92	8.92	1345	76.0	378	75 Q-FYELD	
831380	K74129/POTAM 70	K8005271	SWS				9.34	9.25	1325	79.0	363	71	
831381	K74131/POTAM 70	K8005274	SWS				9.12	9.11	1285	75.0	375	71	
831382	K74135/POTAM 70	K8005457	SWS				8.86	8.77	1285	73.0	368	73 Q-CODI&SCSOR	
831383	K74135/POTAM 70	K8005461	SWS				8.84	8.79	1265	72.0	368	74 Q-CAVOL	
831384	K74135/POTAM 70	K8005463	SWS				8.64	8.63	1310	76.0	380	75 Q-CODI	
831385	K7205209/(VH073414, C59287/0/1834/17...	K8006366	SWS				8.87	8.84	1265	69.0	359	77 P-FYELD&CAVOL	
831386	K7205209/(VH073414, C59287/0/1834/17...	K8006368	HWS	848	805	8	8.01	8.07	1205	64.0	361	75 P-LVOL&BCRGR	
831387	K74132/POTAM 70	K8005395	SWS				8.66	8.59	1135	76.0	362	78 P-FYELD	
831388	K74469/POTAM 70	K8005860	SWS				8.41	8.43	1280	69.0	367	71 P-CODI&CAVOL	
831389	K74469/POTAM 70	K8005861	SWS				8.96	8.96	1340	73.0	378	76	
831390	K74560/POTAM 70	K8006090	SWS				8.66	8.78	1315	76.0	380	71	
831391	WA6171/(C1014588, TWIN)	K8006224	HWS	803	766	5	8.01	8.06	1250	67.0	365	72 P-CODI&CAVOL	
831392	PROSPUR/(K750050, K70340/3/ERA//ATL66...	K8006596	SWS				8.84	8.88	1400	80.0	383	70	
831393	K78504/K74129-33/K7806645, K79299-10	HF820054	SWS				8.59	8.54	1315	74.0	369	76 P-FYELD, CODI	
831394	K78504/K74129-33/K7806645, K79299-11	HF820055	SWS				8.95	8.92	1390	77.0	373	74	
831395	WSMP-4120	WS004120	SWS				9.06	9.00	1365	79.0	384	74	
831396	81AS-3013	NK790655	HWS	890	902	4	8.55	8.53	1275	72.0	365	67 P-BCRGR&CODI	

COMMENTS: See "Remarks" for deficiencies of selections which are not noted with footnotes (5/ or 6/) for good overall quality.

P = Poor; Q = Questionable



NURSCO 38

TULELAKE, CA

Y. P. PURI

LABNUM	VARIETY	IDNO	CLASS	TWt	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
831397	YECORA ROJO 0 LBS. N	83-1134	HRS	63.2	69.4	0.47	79.8	7.8	59.4	8L
831398	YOLO (C1017961) 0 LBS. N	83-1262	HRS	62.0	71.0	0.38	87.1	6.8	57.5	5L
831399	FIELDER (C1017268) 0 LBS. N	83-1260	SWS	63.2	69.3	0.37	85.6	6.5	53.5	2L
831400	YECORA ROJO 100 LBS. N	83-1157	HRS	64.4	70.6	0.40	85.1	10.2	57.8	6M
831401	YOLO (C1017961) 100 LBS. N	83-1237	HRS	63.2	72.4	0.41	86.8	7.6	58.0	2M
831402	FIELDER (C1017268) 100 LBS. N	83-1239	SWS	63.6	70.0	0.40	84.9	8.1	53.6	1M
831403	YECORA ROJO 200 LBS. N	83-1160	HRS	64.8	71.2	0.42	85.0	11.1	60.2	4M
831404	YOLO (C1017961) 200 LBS. N	83-1288	HRS	62.8	72.7	0.42	86.6	8.7	55.3*	2M
831405	FIELDER (C1017268) 200 LBS. N	83-1286	SWS	63.2	69.5	0.40	84.4	8.1	52.1	1M
831406	YECORA ROJO 300 LBS. N	83-1183	HRS	64.0	68.4	0.44	80.8	11.7	59.4	4M
831407	YOLO (C1017961) 300 LBS. N	83-1263	HRS	63.2	73.2	0.41	87.6	9.5	55.0	2M
831408	FIELDER (C1017268) 300 LBS. N	83-1265	SWS	63.6	70.0	0.40	84.6	8.7	51.2	1M

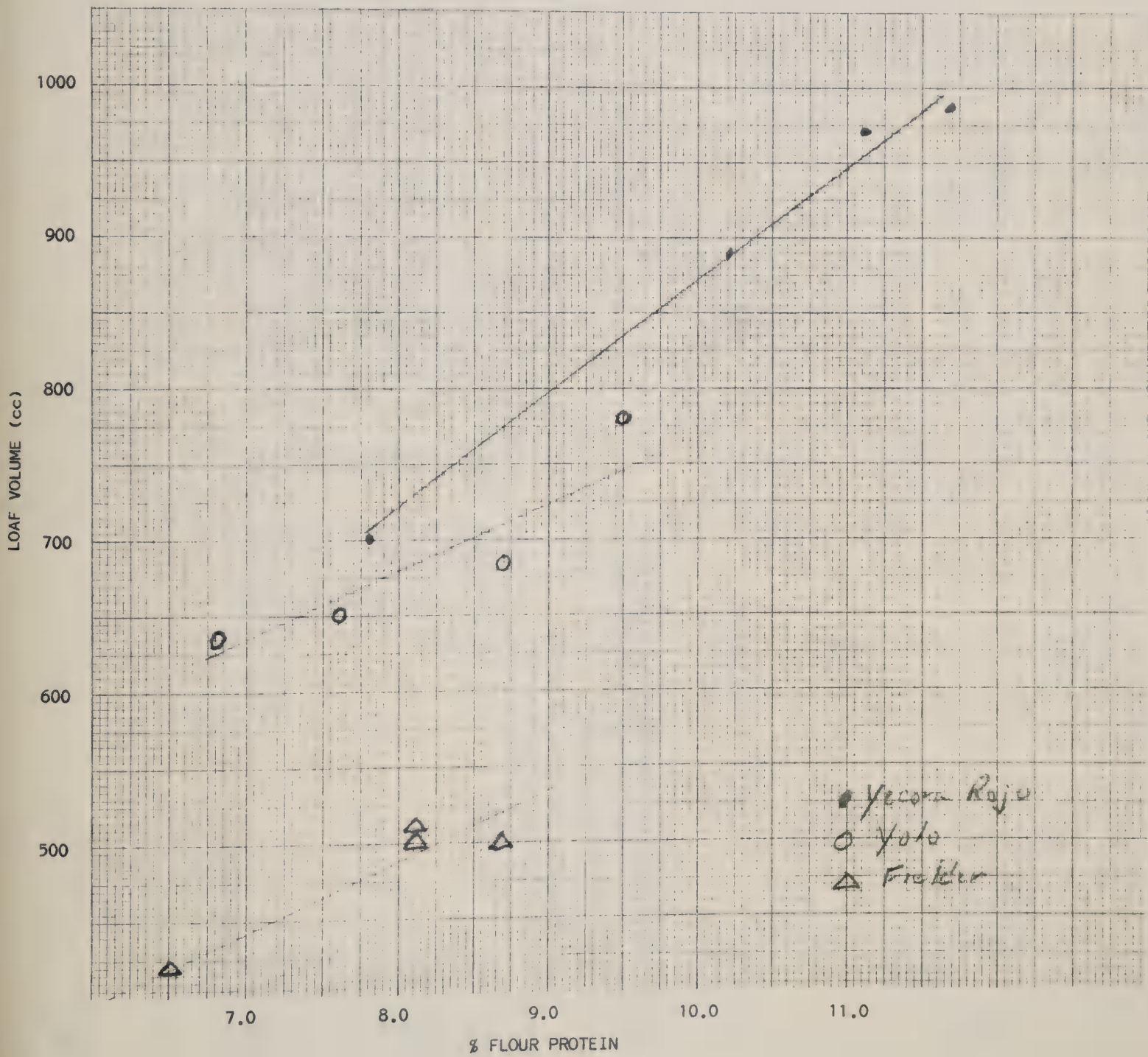
LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RNKS
					3/			4/		
831397	YECORA ROJO 0 LBS. N	83-1134	HRS	61.4	62.6	5.5	700	772	8	VP-BCRGR
831398	YOLO (C1017961) 0 LBS. N	83-1262	HRS	56.5	58.7	3.1	635	767	9	VP-BCRGR
831399	FIELDER (C1017268) 0 LBS. N	83-1260	SWS	53.2	55.7	2.2	420	570	9	VP-BCRGR
831400	YECORA ROJO 100 LBS. N	83-1157	HRS	63.2	62.0	4.7	890	816	2	
831401	YOLO (C1017961) 100 LBS. N	83-1237	HRS	56.8	58.2	1.4	650	737	9	VP-MTIME&BCRGR
831402	FIELDER (C1017268) 100 LBS. N	83-1239	SWS	52.9	53.8	1.0	510	564	9	VP-MTIME&BCRGR
831403	YECORA ROJO 200 LBS. N	83-1160	HRS	65.0	62.9	3.2	970	840	2	
831404	YOLO (C1017961) 200 LBS. N	83-1288	HRS	56.2	56.5	1.5	685	704	9	VP-MTIME&BCRGR
831405	FIELDER (C1017268) 200 LBS. N	83-1286	SWS	50.8	51.7	1.0	500	554	9	VP-MTIME&BCRGR
831406	YECORA ROJO 300 LBS. N	83-1183	HRS	67.3	64.6	2.9	985	823	2	
831407	YOLO (C1017961) 300 LBS. N	83-1263	HRS	55.0	54.5	1.0	780	749	9	VP-MTIME&BCRGR
831408	FIELDER (C1017268) 300 LBS. N	83-1265	SWS	49.9	50.2	1.0	500	518	9	VP-MTIME&BCRGR

COMMENTS: All three varieties showed response (2-4% increase) with fertility levels. Yolo, a HRS failed make adequate protein even at 300 lb/N and lacks all desirable bread making properties. Fielder (SWS) is not a bread wheat and performed as expected. See figure of loaf volume vs flour protein, page 2.

FLOUR PROTEIN			
lbs. N			
	0	100	200
Yecora Rojo	7.8	10.2	11.1
Yolo	6.8	7.6	8.7
Fielder	6.5	8.1	8.1
LOAF VOLUME			
Yecora Rojo	700	890	970
Yolo	635	650	685
Fielder	420	510	500









NURSCO 39

TULELAKE, CA

Y.P. PURI

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	LVOL	BCRGR	RMKS
						1/					1/	3/	
831409	YECORA ROJO	83-1-A-2	HRS	64.4	71.2	0.43	84.2	9.1	60.4	8M			
831410	YECORA ROJO	83-1-A-3	HRS	65.2	69.1	0.44	81.3	8.7	59.1	8L			
831411	YECORA ROJO	83-1-B-2	HRS	65.2	69.8	0.43	82.7	8.7	60.6	8L			
831412	YECORA ROJO	83-1-B-3	HRS	64.8	69.8	0.44	82.4	8.2	62.1	8M			
831413	YECORA ROJO	83-1-C-2	HRS	64.8	68.9	0.43	82.1	8.0	59.6	8L			
831414	YECORA ROJO	83-1-C-3	HRS	65.2	70.6	0.42	84.2	9.2	62.1	8M			
831415	YECORA ROJO	83-1-D-2	HRS	65.6	69.5	0.42	83.1	8.3	60.3	8L			
831416	YECORA ROJO	83-1-D-3	HRS	64.4	69.8	0.42	83.1	8.9	61.8	8M			
831417	YECORA ROJO	83-1-E-2	HRS	64.8	70.9	0.41	84.8	10.2	61.8	6H			
831418	YECORA ROJO	83-1-E-3	HRS	64.8	69.3	0.42	82.8	8.1	62.4	8L			
831419	YECORA ROJO	83-1-F-2	HRS	65.6	69.5	0.42	83.0	8.4	61.2	8L			
831420	YECORA ROJO	83-1-F-3	HRS	65.6	70.9	0.42	84.6	9.8	63.3	7M			

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: Because of the low protein content and apparent lack of response to treatment no bread baking tests were conducted on this material.  
Milling was unaffected by the fertilizer treatments.



NURSCO 40

PENDLETON, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC RMKS	
												1/ 2/	3/ 4/
831421	STEPHENS/PI173438(M76-479)PW7716.K-3363	08245	5/SWW	57.3	71.4	0.40	86.4	7.6	52.5	2L	9.10	9.06	P-FYELD&CODI
831422	CERCO/TJB 841/1543	OWW76028	HRW	64.2	63.0	0.43	75.4	8.1	57.8	6L	8.02	8.03	P-FYELD&CODI
831423	CD/P101//DRC.6720-69-13.CB297	M-340	6/SWW	56.8	66.6	0.41	79.6	7.4	56.5	4L	8.95	8.88	Q-FYELD
831424	STEPHENS/PI173438(M76-479).PW77-16.K.361	OR8254	SWW	54.5	64.2	0.42	76.3	7.1	53.9	2L	9.26	9.16	P-FYELD
831425	CEBCO 14B/CNO S//INIA S//LEN/3/K//PET...	M-27	SWW	54.6	63.8	0.41	76.0	7.8	54.0	2L	9.01	8.99	P-FYELD
831426	55-1744/ZC//SUM/ROED.SW0730902F-1H-1H...	M-230	HWW	58.4	65.1	0.41	78.8	8.1	56.3	3M	8.42	8.43	P-FYELD&CODI
831427	EMU/V6707.SWM755202*-01H-1M-OH	M-220	6/SWW	58.5	67.3	0.40	81.5	8.1	53.5	5L	9.30	9.31	
831428	65-11-70--MBW-2/R1EB F1//65-116-70-MB...	M-46	6/SWW	58.0	68.6	0.41	82.5	7.6	53.4	5L	9.25	9.21	
831429	STEPHENS/SM-4(7436)(M76-473)PW77-15	K-359	5/SWW	56.5	69.3	0.39	84.5	8.1	51.7	2L	9.29	9.30	
831430	HILL 81 (OR68007)	CI017954	SWW	56.8	68.9	0.45	79.9	8.1	53.0	2L	9.10	9.11	
831431	DAWS	CI017419	SWW	55.6	66.1	0.41	79.0	7.1	53.2	5L	8.77	8.68	
831432	1-607/CAMA//SENCOR CLUB.168-5	K-197	6/SWW	56.2	66.3	0.41	79.4	7.0	55.6	5L	9.00	8.89	
831433	67-2337-53H/178383.M76-324//OR7464.78-2	K-18	HRW	57.0	64.3	0.37	79.9	6.6	58.2	6L	8.56	8.45	P-FYELD&CODI
831434	1-607/CAMA/3//M68-880/HYS/YMH/HYS.69...	K-221	6/SWW	56.5	67.5	0.40	81.4	7.4	56.2	6L	9.17	9.11	
831435	1-601/CAMA//OR7464.165-2	K-147	6/SWW	55.2	69.7	0.41	83.7	6.8	54.5	5L	9.02	8.89	
831436	STEPHENS/PI173438(M76-4479).PW77-16	K-361	SWW	55.6	65.9	0.41	78.9	7.2	53.1	3L	9.17	9.09	Q-FYELD
831437	MCDERMID/ROMANIAN//STEPHENS.540-7	K-84	6/SWW	58.2	68.1	0.38	83.7	7.4	53.7	3L	9.12	9.06	
831438	FARO	CI017590	CLUB	52.7	68.3	0.49	76.9	7.7	51.6	3L	9.24	9.20	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: With the exception of OWW76028, all entries in this nursery were low in test weight which probably is responsible for the atypical flour yield and milling scores. Cookie baking properties appear near normal.

P = Poor; Q = Questionable





NURSCO 41

PENDLETON, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/
831439	MCDERMID/ROMANIAN//OR7141.K-83	OR8270	SWW	57.8	66.9	0.41	73.6	7.5	54.5
831440	STEPHENS	C1017596	SWW	56.5	67.4	0.43	72.5	8.4	53.5
831441	HYS/NORCO//CAMA/3/SM-4(7436).M76-502	OR8188	SWW	60.0	69.7	0.45	76.4	7.2	54.3
831442	RIESEL/HYSOP.C588-SE-03W5.CB114	6/ M-132	SWW	59.9	67.4	0.41	74.5	7.7	52.9
831443	HILL 81 (OR68007)	C1017954	SWW	58.2	69.2	0.45	75.5	8.4	53.1
831444	REW/LUKE.SEL.305	6/ OR7794	SWW	60.9	70.9	0.41	80.0	7.0	55.0
831445	SUWON 92/3*OMAR.SEL.142	6/ OR7142	SWW	58.3	70.3	0.43	77.6	7.4	50.6
831446	FARO	C1017590	CLUB	55.4	69.9	0.48	73.6	8.1	50.5
831447	JACMAR	WA6585	CLUB	55.3	68.2	0.47	72.9	7.6	49.8
831448	PAHA/SEL.65-2124(M76-423).A-1	6/ OR814	CLUB	56.6	69.9	0.45	77.1	7.3	51.2
831449	HYSLOP/YAYLA//WA4995/3/CERCO.W-1980	6/ OR7996	SWW	59.8	69.6	0.45	75.4	7.7	52.9
831450	DAWS	C1017419	SWW	57.5	68.0	0.44	74.0	7.4	52.7
831451	SCT/101//3469/PI178383/S1.AM07974	WA6914	SWW	60.8	66.5	0.42	73.0	7.7	56.5
831452	SW92/6*0/3/T.SP/CTL//3*0	5/ WA6698	CLUB	58.6	69.0	0.43	76.0	7.4	50.1
831453	HYS/YAYLA//63-112-66-4/3/HYS SF.F1/4/...	OWW74220F	SWW	59.4	70.0	0.44	76.5	7.3	54.6
831454	MNL//BB/7C SWM731377*-1H-100P	SWM73137*-	HWW	59.5	66.8	0.43	72.7	7.8	58.5
831455	HRAY-26	HRAY-26	HRW	61.4	69.1	0.41	77.8	8.0	58.4
831456	65-116-MBW//63-189-66-7/BEZO	6/ OWW72339	SWW	59.1	68.6	0.43	75.1	7.4	52.9
831457	MILDRESS/3/YMH//RIEB/WA4995	6/ OWW70094	SWW	57.3	70.1	0.40	78.0	7.3	51.1
831458	61-1228-6-706//69-148//NUG	OWW71730	SWW	57.4	69.6	0.41	77.1	7.9	51.7
831459	NDD/P101//V6400-6-2-33	6/ OWW750144	SWW	60.1	70.1	0.41	78.3	7.7	51.4
831460	TAST/TORIM	SWM754397	SWW	60.8	67.4	0.41	74.6	8.2	53.1
831461	7C-MORO	OWW68100	CLUB	61.9	69.8	0.38	80.4	6.9	53.1
831462	STEPHENS 2*/CAMA.K-115	OR8262	HWW	61.0	69.0	0.40	78.0	8.7	55.9

1/Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 41

PENDLETON, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	MTYPE	CODI	CODIC	CAVOL	SCSOR	RMKS
831439	MCDERMID/ROMANIAN//OR7141.K-83	OR8270	SWW	2L	8.37	8.32	1061	60.0	P-CODI&CAVOL
831440	STEPHENS	C1017596	SWW	2L	8.50	8.54	1204	72.0	
831441	HYS/NORCO//CAMA/3/SM-4(7436).M76-502	OR8188	SWW	5L	8.32	8.24	1167	67.0	P-CODI&SCSOR
831442	RIEBSEL/HYSOP.C588-SE-03W5.CB114	M-132	SWW	2L	8.67	8.64	1185	69.0	
831443	HILL 81 (OR68007)	C1017954	SWW	2M	8.75	8.79	1188	68.0	
831444	REW/LUKE.SEL.305	OR7794	SWW	2L	8.64	8.53	1251	77.0	
831445	SUWON 92/3*OMAR.SEL.142	OR7142	SWW	2L	8.66	8.60	1239	73.0	
831446	FARO	C1017590	CLUB	2L	8.82	8.83	1237	74.0	
831447	JACMAR	WA6585	CLUB	2L	8.99	8.96	1295	76.0	
831448	PAHA/SEL.65-2124(M76-423).A-1	OR814	CLUB	2L	8.84	8.79	1238	72.0	
831449	HYSLOP/YAYLA//WA4995/3/CERCO.W-1980	OR7996	SWW	4L	8.85	8.82	1221	74.0	
831450	DAWS	C1017419	SWW	5L	8.42	8.36	1164	70.0	
831451	SCT/101//3469/P1178383/S1.AM07974	WA6914	SWW	4L	8.64	8.60	1107	61.0	P-SCSOR
831452	SW92/6*0/3/T.SP/CTL//3*0	WA6698	CLUB	1L	8.89	8.84	1250	75.0	
831453	HYS/YAYLA//63-112-66-4/3/HYS SF.F1/4/...	OWW74220F	SWW	3L	8.71	8.64	1163	68.0	Q-CAVOL&SCSOR
831454	MNL//BB/7C SWM731377*-1H-100P	SWM73137*-	HWW	4L	8.11	8.10	1161	66.0	P-CODI&SCSOR
831455	HRAY-26	HRAY-26	HRW	3L	8.04	8.04	1028	56.0	P-CODI&SCSOR
831456	65-116-MBW//63-189-66-7/BEZO	OWW72339	SWW	2L	8.52	8.46	1236	71.0	
831457	MILDRESS/3/YMH//RIEB/WA4995	OWW70094	SWW	2L	9.12	9.05	1274	72.0	
831458	61-1228-6-706//69-148//NUG	OWW71730	SWW	2L	9.06	9.05	1227	67.0	Q-SCSOR
831459	NDD/P101//V6400-6-2-33	OWW750144	SWW	2L	8.74	8.70	1226	73.0	
831460	TAST/TORIM	SWM754397	SWW	2L	8.59	8.61	1149	69.0	Q-CAVOL&SCSOR
831461	7C-MORO	OWW68100	CLUB	2L	9.19	9.11	1177	68.0	Q-CAVOL&SCSOR
831462	STEPHENS 2*/CAMA.K-115	OR8262	HWW	3L	8.35	8.43	1070	60.0	P-CODI&CAVOL

COMMENTS: These wheats were atypical in milling and baking properties. All, including the check varieties were poor in flour yield and milling score, which may have been the results of low test weights. The experimental selections were judged in comparison with the check varieties performance, which may or may not hold under different growing conditions and more typical test weights. See "Remarks" for deficiencies of those selections not footnoted as promising in quality characteristics.

P = Poor; Q = Questionable



NURSCO 42

MORO, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC RMKS
					1/	1/		1/	3/		4/	
8311463	STEPHENS	C1017596	SWW	61.6	71.2	0.35	89.5	6.3	53.2	2L	9.31	9.24
8311464	REW/CAMA//OR74131.K-271	OR8233	6/SRW	63.3	73.3	0.36	91.4	6.7	51.7	2L	9.34	9.30
8311465	67-237-53H/178383.M76-324//OR7464.K-182	OR8214	HRW	62.3	67.5	0.35	84.6	7.2	62.1	4L	8.16	8.18
8311466	STEPHENS/CAMA//OR765.K-300	OR8238	HRW	63.2	72.5	0.38	89.3	6.9	53.9	3L	8.71	8.70
8311467	1-607/CAMA//SENCOR CLUB.K-198	OR8218	6/SWW	63.8	71.2	0.36	88.6	8.0	52.1	5L	9.39	9.50
8311468	CERCO/ROMANIAN//STEPHENS.K-233	OR8224	6/SWW	61.3	69.9	0.36	86.9	6.6	54.7	2L	9.05	9.01
8311469	1-607/CAMA//OR7464.K-145	OR824	SRW	61.6	68.5	0.37	84.8	5.8	57.6	8L	8.97	8.84
8311470	1-607/CAMA//OWM69-028-3W5.K-144	OR823	SWW	62.2	67.4	0.33	86.0	7.4	53.4	8L	9.39	9.43
8311471	1-607/CAMA//OWM69-028-3W5/K-135	OR826	SWW	63.3	68.1	0.34	86.4	7.5	53.4	8L	9.37	9.43
8311472	SEL.101/CAMA//1-72/CAMA.K-40	OR8258	6/SRW	62.0	71.8	0.38	88.3	7.7	53.8	3L	8.90	8.98
8311473	CAMA/3/ELGIN//166910/ELGIN.K-7	OR8265	HRW	63.0	69.6	0.37	85.7	7.7	57.1	5L	8.79	8.84
8311474	DAWS	C1017419	SWW	63.1	70.3	0.35	88.4	6.9	52.1	5L	8.96	8.95
8311475	0705CLEMENT.WWPN6	M-37	SRW	61.4	66.8	0.33	85.2	6.8	51.3	1L	9.25	9.23
8311476	DISPONENT.CB-178	M-139	HRW	63.2	72.1	0.40	86.6	7.8	50.8	5L	8.69	8.75
8311477	CHIEFTAN.MCB1478	M-172	SRW	61.2	68.0	0.37	83.9	7.1	52.4	2L	8.94	8.95
8311478	FARO	C1017590	CLUB	61.9	72.6	0.35	91.3	6.0	51.6	1L	9.34	9.23
8311479	VG4059-2-16-117-69/ERA.MCB-647	M-199	HRW	65.4	69.8	0.36	86.7	9.0	55.8	3M	8.67	8.83
8311480	GOLDEN VALLEY/PICH S.HRPYT-104	M-221	HRW	63.8	72.1	0.34	89.8	8.0	56.2	4L	8.55	8.63
8311481	F60212-76.MEXCB78240	M-247	HRW	63.7	68.8	0.33	86.9	7.9	54.8	1M	8.74	8.81
8311482	F60213-76.MEXCB78241	M-248	HRW	64.4	69.7	0.32	88.3	8.5	52.3	1M	8.32	8.44
8311483	GK-FERTODI-2/NE701134.730713.MCB669	M-282	HRW	61.1	71.7	0.37	88.6	7.0	55.1	6L	8.72	8.72
8311484	BEZ 1/PRODUCIORE(128-1)/AU FUN59 71....	M-285	HRW	63.7	73.4	0.35	92.2	8.4	52.7	2M	8.77	8.93
8311485	STEPHENS/CAMA//OR765.414-1	K-307	6/SRW	62.4	69.2	0.36	86.1	7.7	52.4	4L	9.17	9.25
8311486	CERCO/ROMANIAN//STEPHENS.423-2	K-310	HRW	63.6	67.7	0.34	85.6	7.4	57.5	6L	8.37	8.41
8311487	CERCO/ROMANIAN//STEPHENS.423.4	K-311	HRW	64.6	68.5	0.33	86.5	7.4	58.9	6L	8.49	8.52
8311488	WANSER	C1013844	HRW	64.2	68.5	0.34	86.2	8.0	56.7	6L	8.68	8.76

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 7% Protein.

4/ Observed Values Corrected to 7% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: Many of these selections were red seeded and hard in texture. Because of the low protein content they were not tested for bread baking properties. Others were soft reds (See Class column and Remarks). Selection M-285 is noteworthy for milling properties and cookie diameter for a HRW.

P = Poor; Q = Questionable



NURSCO 444

ROYAL SLOPE, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
831507	C1017689/WARED, K74102-118	NZ SEL2	HRS	62.3	63.2	2.0	970	1026	8P-BCRGR	
831508	C1017689/WARED, K74102-118	NZ SEL3	HRS	64.6	65.1	3.0	955	986	2	
831509	C1017689/WARED, K74102-118	NZ SEL4	HRS	67.5	67.6	3.5	990	996	2	
831510	C1017689/WARED, K74102-118	NZ SEL8	HRS	70.5	69.9	3.6	1000	963	3Q-BCRGR	
831511	C1017689/WARED, K74102-118	NZ SEL10	HRS	67.2	67.2	3.1	955	955	2	
831512	C1017689/WARED, K74102-118	NZ SEL11	HRS	67.8	67.8	2.9	975	975	2	
831513	C1017689/WARED, K74102-118	NZ SEL23	HRS	65.3	65.9	1.8	935	972	2	
831514	BORAH/C1017689, K74127-339	NZ SEL1	HRS	70.3	69.8	4.8	980	949	3Q-LVOL&BCRGR	
831515	BORAH/C1017689, K74127-339	NZ SEL4	HRS	71.4	71.1	4.5	995	976	3Q-BCRGR	
831516	BORAH/C1017689, K74127-339	NZ SEL7	HRS	69.4	69.5	4.8	975	981	4Q-BCRGR	
831517	BORAH/C1017689, K74127-474	NZ SEL7	HRS	67.8	67.5	2.6	910	891	4P-BCRGR	
831518	BORAH/C1017689, K74127-474	NZ SEL8	HRS	67.7	66.5	2.5	945	871	2	
831519	BORAH/C1017689, K74127-474	NZ SEL10	HRS	68.2	67.8	3.1	965	940	2Q-LVOL	
831520	BORAH/C1017689, K74127-474	NZ SEL12	HRS	68.7	68.1	3.2	985	948	1	
831521	BORAH/C1017689, K74127-474	NZ SEL13	HRS	66.7	66.7	2.2	965	965	2	
831522	V761-28-J4-B2 NZ SEL8		HRS	68.0	67.7	3.7	985	966	2Q-FYELD	
831523	V761-28-J4-B2 NZ SEL11		HRS	70.2	69.7	4.1	1005	974	2	
831524	WAMPUM C1017691		HRS	65.9	66.6	3.1	975	1018	2	
831525	K73579/BORAH	WA007075	HRS	66.5	67.3	2.5	950	1000	2	
831526	K74153/(K74093, WA6096//...	WA007076	HRS	67.5	68.3	2.8	895	945	5P-LVOL&BCRGR	

COMMENTS: Selection HP830023 has the highest protein in the group, but it failed to perform as expected in loaf volume response to that protein.

P = Poor; Q = Questionable







KS, TX, NE, OK

NURSCO 45

LABNUM	VARIETY	IDNO	CLASS	FASH 1/	FPROT 1/	MABSC 3/	MTYPE	FABS	FPEAK	FSTAB
831527	CONTROL (802)(803)(804) -- GROUP 1	83-801	HRW	0.43	12.3	61.1	4H	61.9	8.5	34.0
831528	EXPERIMENTAL	6/ 83-802	HRW	0.44	12.9	60.9	3H	61.8	4.5	8.5
831529	EXPERIMENTAL	83-803	HRW	0.41	13.3	59.8	4H	60.4	6.0	8.5
831530	EXPERIMENTAL	83-804	HRW	0.39	12.0	59.6	4H	62.2	4.0	26.0
831531	CONTROL (806)	83-805	HRW	0.38	11.6	58.6	4M	62.8	4.5	11.5
831532	EXPERIMENTAL	83-806	HRW	0.39	12.3	58.7	4H	63.4	6.0	10.0
831533	CONTROL -- GROUP 2	83-807	HRW	0.43	11.4	57.8	8M	57.1	2.0	5.0
831534	EXPERIMENTAL	6/ 83-808	HRW	0.43	12.3	61.0	5H	57.3	3.0	10.5
831535	EXPERIMENTAL	6/ 83-809	HRW	0.45	12.8	59.0	5H	57.7	3.0	12.5
831536	CONTROL -- GROUP 3	83-810	HRW	0.49	12.7	60.1	4H	58.6	3.0	8.0
831537	EXPERIMENTAL	83-811	HRW	0.48	12.5	57.1	6M	56.9	6.5	12.0
831538	EXPERIMENTAL	83-812	HRW	0.44	12.0	57.1	4M	55.5	3.0	7.5
831539	EXPERIMENTAL	83-813	HRW	0.47	12.7	57.3	6M	58.2	6.5	9.0
831540	CONTROL -- GROUP 4	83-814	HRW	0.46	10.5	59.7	7M	57.1	1.5	8.5
831541	EXPERIMENTAL	6/ 83-815	HRW	0.43	11.2	58.4	7M	57.6	5.0	9.0
831542	CONTROL -- GROUP 5	83-816	HRW	0.44	12.3	59.8	4H	57.6	4.5	11.0
831543	EXPERIMENTAL	6/ 83-817	HRW	0.41	12.7	57.8	7M	59.5	6.0	24.0
831544	EXPERIMENTAL	83-818	HRW	0.44	12.7	59.7	8M	62.2	5.5	23.5
831545	EXPERIMENTAL	6/ 83-819	HRW	0.44	13.0	59.5	6M	61.0	5.5	11.5
831546	EXPERIMENTAL	83-820	HRW	0.49	12.6	59.7	4M	63.3	3.5	8.0

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

4/ Observed Values Corrected to 12% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

NURSCO 45

# HARD RED WINTER WHEAT COUNCIL

KS, TX, NE, OK

CONTD. PAGE 1

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
831527	CONTROL (802)(803)(804) -- GROUP 1	83-801	HRW	64.6	64.3	3.6	985	966	2	
831528	EXPERIMENTAL	83-802	HRW	65.0	64.1	3.0	1023	967	2	
831529	EXPERIMENTAL	83-803	HRW	64.8	63.5	3.9	1065	984	4 Heavy BCRGR	
831530	EXPERIMENTAL	83-804	HRW	65.3	65.3	4.0	1008	1008	3Q-BCRGR	
831531	CONTROL (806)	83-805	HRW	62.4	62.8	3.4	925	950	2	
831532	EXPERIMENTAL	83-806	HRW	64.1	63.9	3.5	958	946	4 Heavy BCRGR	
831533	CONTROL -- GROUP 2	83-807	HRW	62.1	62.5	5.3	990	1015	2	
831534	EXPERIMENTAL	83-808	HRW	65.0	64.7	5.2	1025	1006	2	
831535	EXPERIMENTAL	83-809	HRW	63.5	62.7	4.8	1050	1000	2	
831536	CONTROL -- GROUP 3	83-810	HRW	62.5	61.8	3.0	1050	1007	2	
831537	EXPERIMENTAL	83-811	HRW	60.8	60.3	3.5	980	949	4 P-LVOL&BCRGR	
831538	EXPERIMENTAL	83-812	HRW	58.3	58.3	2.8	1025	1025	3 Q-BCRGR	
831539	EXPERIMENTAL	83-813	HRW	62.7	62.0	3.6	1003	960	3 Q-LVOL&BCRGR	
831540	CONTROL -- GROUP 4	83-814	HRW	62.4	63.9	4.3	990	1083	2	
831541	EXPERIMENTAL	83-815	HRW	62.3	63.1	4.2	990	1040	2	
831542	CONTROL -- GROUP 5	83-816	HRW	64.3	64.0	3.8	1043	1024	2	
831543	EXPERIMENTAL	83-817	HRW	63.2	62.5	3.4	1023	980	1	
831544	EXPERIMENTAL	83-818	HRW	64.1	63.4	3.4	1010	967	2 Q-LVOL	
831545	EXPERIMENTAL	83-819	HRW	64.7	63.7	3.5	1065	1003	2	
831546	EXPERIMENTAL	83-820	HRW	64.0	63.4	2.8	1008	971	2 Q-LVOL	

COMMENTS: These flours were evaluated in collaboration with the Hard Red Winter Wheat Council.

P = Poor; Q = Questionable



NURSCO 46

PENDLETON, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/ 1/		1/ 1/	3/ 3/		
831547 DIRKWIN		CI017745	SWS	59.3	67.2	0.42	80.0	8.2	48.7	1L	
831548 TWIN		CI014588	SWS	60.2	67.1	0.44	78.5	8.3	48.9	2L	
831549 WARED		CI015926	HRS	63.2	70.1	0.40	84.5	9.2	55.1	8M	59.5
831550 BORAH		CI017267	HRS	63.7	69.8	0.36	86.6	9.6	55.7	8M	64.5
831551 FIELDWIN		CI017425	SWS	62.3	68.8	0.35	86.3	7.6	50.8	2L	
831552 FEDERATION		CI004734	SWS	60.4	65.5	0.38	80.1	7.7	49.7	2L	
831553 WAMPUM		CI017691	HRS	61.3	68.7	0.42	82.2	8.3	55.3	7L	57.3
831554 BORAH/3/11-60-10//TZPP/SN64		ID0153	HRS	62.0	67.7	0.38	83.2	9.1	59.1	8M	62.9
831555 K71051/WA5949		6/ WA6749	HRS	62.2	68.6	0.42	82.2	8.6	56.7	8M	58.5
831556 OWENS		CI017904	SWS	62.6	66.1	0.36	82.3	8.0	53.1	3L	
831557 MCKAY		CI017903	HRS	63.2	66.2	0.36	82.7	9.2	56.9	8M	60.3
831558 WAVERLY		CI017911	SWS	61.0	71.8	0.38	88.3	8.0	51.5	2M	
831559 FBR/5/BB11/4/7*SF/3/AS/FR//A631675-A-5		6/ ID0236	SWS	62.0	68.7	0.38	84.4	9.3	50.9	4M	
831560 YECORA ROJO			HRS	64.1	70.3	0.39	85.6	10.2	58.5	8M	62.9
831561 ID0067*2/BB 5'RESEL.A73345-23-4		ID0227	SWS	60.2	65.2	0.38	80.1	7.5	49.9	2L	
831562 ST5958/ARANA		ORS06558	HWS	62.3	69.0	0.41	83.0	7.8	56.7	3M	59.7
831563 STK/CNO/EMU		ORS06367	HRS	61.6	66.1	0.44	78.3	8.7	54.0	3M	60.9
831564 ORS750573		ORS750573	HRS	62.6	67.1	0.42	80.3	8.4	58.9	8L	62.5
831565 HORK/YMH//KAL/BB		ORS791432	HWS	63.6	70.0	0.39	85.5	7.8	59.1	8M	63.1
831566 ORS44421		ORS44421	HWS	62.6	69.1	0.38	84.8	7.6	57.9	8L	59.2

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 46

PENDLETON, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	LVOL	LVOLC	BCRGR	CODI	CODIC	RMKS
				3/			4/			4/	
831547	DIRKWIN	CI017745	SWS						9.19	9.21	
831548	TWIN	CI014588	SWS						9.11	9.16	
831549	WARED	CI015926	HRS	58.3	4.3	845	771	2	8.65	8.75	
831550	BORAH	CI017267	HRS	62.9	4.2	795	696	5	8.42	8.55	
831551	FIELDWIN	CI017425	SWS						9.29	9.24	
831552	FEDERATION	CI004734	SWS						9.05	9.02	
831553	WAMPUM	CI017691	HRS	57.0	4.6	800	781	2	8.90	8.92	
831554	BORAH/3/11-60-10//TZPP/SNG4	ID0153	HRS	61.8	4.6	760	692	4	8.49	8.58	P-LVOL&BCRGR
831555	K71051/WA5949	WA6749	HRS	57.9	3.7	825	788	2	8.70	8.75	Similar to Wampum
831556	OWENS	CI017904	SWS						9.25	9.25	
831557	MCKAY	CI017903	HRS	59.1	5.7	900	826	2	8.92	9.02	
831558	WAVERLY	CI017911	SWS						9.20	9.20	
831559	FBR/5/BB11/4/7*SF/3/AS/FR//A631675-A-5	ID0236	SWS	60.7	5.6	895	759	2	9.41	9.56	
831560	YECORA ROJO		HRS						8.45	8.63	
831561	ID0067*2/BB 5' RESEL. A73345-23-4	ID0227	SWS						9.20	9.14	Low FYELD
831562	ST5958/ARANA	ORS06558	HWS	59.9	2.7	665	677	9	8.36	8.34	VP-LVOL&BCRGR
831563	STK/CNO/EMU	ORS06367	HRS	60.2	3.2	595	552	9	8.32	8.38	VP-LVOL,BCRGR&FYELD
831564	ORST50573	ORS750573	HRS	62.1	4.7	765	740	4	8.65	8.68	P-LVOL,BCRGR&FYELD
831565	HORK/YMH//KAL/BB	ORS791432	HWS	63.3	4.7	710	722	6	8.36	8.34	P-LVOL&BCRGR
831566	ORS44421	ORS44421	HWS	59.6	4.7	760	784	4	8.77	8.73	P-LVOL&BCRGR

COMMENTS: Several of the white wheat selections were hard endosperm (See Class). These wheat did not perform well in bread baking trials, but the protein was too low to be very conclusive.

P = Poor; VP = Very Poor





NURSCO 47

PENDLETON, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/		1/	3/		
831567	URQUIE	C1017413	SWS	53.6	66.0	0.48	74.5	9.4	53.3	3M	
831568	OWENS	C1017904	SWS	57.4	66.7	0.51	73.8	10.6	56.2	2M	
831569	UNKNOWN	5/ID0264	SWS	56.9	71.9	0.47	82.4	10.1	55.1	2M	
831570	ID46/ID53/5/4YT54//NRN10/BUR/3/NGN/4/..6/ID265	6/ID265	SWS	57.2	67.0	0.53	72.8	10.8	56.9	3M	
831571	ID0046/ID0053//FIELWIN	6/ID0266	SWS	60.4	70.5	0.47	81.0	10.5	57.6	2M	
831572	A77745-6	ID0267	SWS	57.8	66.3	0.53	71.9	11.1	59.0	3M	
831573	S*TWIN/4/ID20/3/SN/FR//LMH66/5/TWIN/6/..6/ID0268	6/ID0268	SWS	54.7	68.0	0.53	73.7	11.5	58.4	2M	
831574	MCKAY	C1017903	HRS	60.3	72.9	0.43	86.3	11.5	62.8	5H	66.5
831575	WAMPUM	C107691	HRS	56.2	68.0	0.49	77.8	12.6	64.2	4H	69.0
831576	BORAH//A678259-B-48-1	5/ID0269	HRS	58.7	71.9	0.41	86.3	12.0	65.0	7H	69.2
831577	ID0047-3/A70330S-B-33-1	5/ID0270	HRS	60.0	73.6	0.42	87.2	11.5	61.8	6H	65.5
831578	BORAH/3/11-60-101//TZPP/SN64/4/ID42//..5/ID0271	5/ID0271	HRS	59.9	73.6	0.41	87.8	12.2	65.4	6H	69.8
831579	MRN/TBR66/33/TZPP/3*AN//B61-136.AB.SEL.1	ID02725/	HRS	59.8	73.0	0.39	88.3	12.7	63.6	5H	67.5
831580	ID0134//ID0064/ID0042	5/ID0273	HRS	58.6	71.3	0.43	84.2	12.4	65.2	6H	68.8
831581	MAXIGENE/ID0134	5/ID0274	HRS	58.9	72.5	0.43	85.6	12.5	63.6	6H	65.8
831582	A6726S-114-1-4/A7390S-1-4	6/ID0275	HRS	58.6	69.5	0.45	81.3	12.7	65.3	7H	69.2
831583	WA6030/CRANE.543-10//BORAH/3/SAWTELL	6/ID0276	HRS	58.2	72.0	0.44	84.5	12.9	65.4	4H	69.5
831584	WA6030/CRANE.543-10//PRODAX/3/BORAH	5/ID0277	HRS	58.1	72.0	0.42	85.7	12.9	64.2	5H	67.3
831585	WA6030/CRANE.543-10//PRODAX/3/BORAH	5/ID0278	HRS	59.9	73.4	0.43	86.7	12.3	63.2	5H	65.7
831586	BORAH//WA6030/CRANE.543-10	6/ID0279	HRS	57.5	71.9	0.48	82.7	12.7	63.8	5H	66.7
831587	DIRKWIN	C1017745	SWS	55.0	68.5	0.52	75.3	10.7	54.2	1H	
831588	TWIN	C1014588	SWS	56.4	68.4	0.54	73.9	10.7	53.2	2H	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

4/ Observed Values Corrected to 12% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 47

PENDLETON, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	LVOL	LVOLC	BCRGR	CODI	CODIC	RMKS
				3/			4/			4/	
831567	URQUIE	C1017413	SWS						8.92	8.64	
831568	OWENS	C1017904	SWS						8.94	8.78	
831569	UNKNOWN	ID0264	SWS						9.35	9.14	
831570	ID46/ID53/5/4YT54//NRN10/BUR/3/NGN/4/...	ID265	SWS						8.99	8.86	
831571	ID0046/ID0053//FIELDWIN	ID0266	SWS						9.19	9.02	
831572	A77745-6	ID0267	SWS						9.02	8.93	Q-MILLING
831573	S*TWIN/4/ID20/3/SN/FR//LMH66/5/TWIN/6/...	ID0268	SWS						9.20	9.14	
831574	MCKAY	C1017903	HRS	67.0	6.9	985	1016	2	8.84	8.80	
831575	WAMPUM	C107691	HRS	68.4	4.8	1015	978	2	8.29	8.34	
831576	BORAH//A678259-B-48-1	ID0269	HRS	69.2	6.9	1040	1040	1	8.44	8.44	
831577	ID0047-3/A70330S-B-33-1	ID0270	HRS	66.0	5.0	1055	1086	2	8.62	8.58	
831578	BORAH/3/11-60-101//TZPP/SN64/4/ID42//...	ID0271	HRS	69.6	7.2	1090	1078	1	8.50	8.52	
831579	MRN/IBR66/33/TZPP/3*AN//B61-136.AB.SEL.1	ID0272	HRS	66.8	5.2	1115	1072	1	8.55	8.61	
831580	ID0134//ID0064/ID0042	ID0273	HRS	68.4	7.3	1040	1015	2	8.29	8.32	
831581	MAXIGENE/ID0134	ID0274	HRS	65.3	6.5	1050	1019	2	8.40	8.44	
831582	A6726S-114-1-4/A7390S-1-4	ID0275	HRS	68.5	8.8	1075	1032	2	8.11	8.17	
831583	WA6030/CRANE.543-10//BORAH/3/SAWTELL	ID0276	HRS	68.6	3.8	1040	984	2	8.27	8.35	
831584	WA6030/CRANE.543-10//PRODAX/3/BORAH	ID0277	HRS	66.4	4.1	1145	1089	2	8.62	8.70	
831585	WA6030/CRANE.543-10//PRODAX/3/BORAH	ID0278	HRS	65.4	5.8	1040	1021	2	8.55	8.57	
831586	BORAH//WA6030/CRANE.543-10	ID0279	HRS	66.0	4.4	1085	1042	2	8.71	8.77	
831587	DIRKWIN	C1017745	SWS						8.89	8.74	
831588	TWIN	C1014588	SWS						9.26	9.07	

COMMENTS: All but one of these selections (ID0267) have promising end-use quality. Several of the HRS selections have particularly good overall quality, exceeding McKay and Wampum (See footnotes).

Q = Questionable



NURSCO 48

PENDLETON, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/		1/	3/		
831589 HATTON		C1017772	HRW	63.7	65.8	0.44	70.6	8.5	58.3	6M	62.0
831590 55-1744/CIETE CERROS//SUWON/ROEDEL....		HRPYT-21	HRW	60.3	63.5	0.44	67.1	8.7	58.6	3M	61.5
831591 SEL. 101/CAMA//1-372/CAMA. K277		OR8234	HRW	58.9	67.8	0.46	72.8	7.9	56.1	2L	58.2
831592 STEPHENS/CAMA//OR765. K-312		OR8239	SRW	60.6	64.9	0.39	71.3	7.5	55.3	2L	
831593 1-607/CAMA//OR7464. K-146		OR825	SRW	57.3	61.9	0.42	65.9	7.7	57.9	6L	
831594 REW2*/CAMA. K-269		OR8232	SRW	60.0	61.2	0.38	66.6	7.5	55.8	2L	
831595 67-237-53H/178383. M76-324//OR7464. K-181		OR8213	HRW	56.0	60.8	0.47	62.1	8.3	59.8	6L	63.3
831596 1-607/CAMA//OWW69-028-3W5. K-186		OR8216	SRW	56.6	63.5	0.41	65.6	7.7	55.7	8L	
831597 1-607/CAMA//OWW69-028-3W5. K-135		OR822	SRW	56.5	64.0	0.41	67.5	7.3	54.0	5L	
831598 CERCO/TJB841/1543. OWW/6028*-CB130		M-148	HRW	56.3	60.7	0.47	61.7	8.0	62.6	8L	
831599 WWP7147. CB-330		M-379	HRW	61.2	65.1	0.38	73.6	9.6	58.7	6L	64.0
831600 STEPHENS/CAMA//OR765. K-284		OR8250	HRW	57.4	66.6	0.43	72.4	7.8	54.7	2L	
831601 OWW70134-3W4//MCD/178383. K-8		OR8266	HRW	59.4	64.8	0.46	68.5	8.1	58.0	6L	61.3

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	LVOL	LVOLC	BCRGR	CODI	CODIC	RMKS
				3/			4/			4/	
831589 HATTON		C1017772	HRW	61.5	3.8	710	679	7	8.11	8.15	
831590 55-1744/CIETE CERROS//SUWON/ROEDEL....		HRPYT-21	HRW	60.8	2.4	605	562	9	7.71	7.77P-FYELD&LVOL	
831591 SEL. 101/CAMA//1-372/CAMA. K277		OR8234	HRW	58.3	3.9	550	556	9	7.92P-LVOL&BCRGR	7.92P-LVOL&BCRGR	
831592 STEPHENS/CAMA//OR765. K-312		OR8239	SRW						8.49	8.45Q-CODI	
831593 1-607/CAMA//OR7464. K-146		OR825	SRW						8.15	8.13P-CODI	
831594 REW2*/CAMA. K-269		OR8232	SRW						8.52	8.48Q-CODI	
831595 67-237-53H/178383. M76-324//OR7464. K-181		OR8213	HRW	63.0	6.5	500	481	9	7.64	7.66P-FYELD&LVOL	
831596 1-607/CAMA//OWW69-028-3W5. K-186		OR8216	SRW						8.47	8.45Q-CODI	
831597 1-607/CAMA//OWW69-028-3W5. K-135		OR822	SRW						8.80	8.74Q-FYELD	
831598 CERCO/TJB841/1543. OWW/6028*-CB130		M-148	HRW						7.20	7.20P-CODI	
831599 WWP7147. CB-330		M-379	HRW	62.4	4.9	625	526	9	7.71	7.84P-LVOL&CODI	
831600 STEPHENS/CAMA//OR765. K-284		OR8250	HRW						8.02	8.01P-CODI	
831601 OWW70134-3W4//MCD/178383. K-8		OR8266	HRW	61.2	5.7	500	494	9	7.80	7.81P-LVOL&BCRGR	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

4/ Promising Overall Quality Characteristics.

COMMENTS: Note the selections that were soft endosperm (CLASS). All of the hard wheats were significantly poorer in loaf volume and crumb grain than the Hatton check variety.





NURSCO 49

PULLMAN, WA

R.E. ALLAN

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC
						1/		1/	3/
831602	TYEE (C1017773)	83-3	CLUB	57.6	73.2	0.37	89.2	7.0	53.5
831603	LJN (C1017909)	83-83	SWW	58.9	72.0	0.36	83.7	7.2	54.2
831604	SPN (C1017596)	83-85	SWW	59.1	71.7	0.36	85.2	7.8	54.5
831605	WA7165	83-93	SWW	60.8	67.5	0.34	78.6	8.2	55.2
831606	WA7163	83-102	SWW	62.1	73.3	0.38	87.2	9.1	56.7
831607	WA7166	83-133	CLUB	61.1	74.1	0.35	91.6	8.2	56.4
831608	WA7164	83-149	SWW	62.2	74.8	0.35	91.5	8.5	55.4

LABNUM	VARIETY	IDNO	CLASS	MTYPE	CODI	CODIC	CAVOL	SCSOR	RMKS
831602	TYEE (C1017773)	83-3	CLUB	2L	9.46	9.39	1405	82.0	
831603	LJN (C1017909)	83-83	SWW	4L	9.39	9.30	1350	76.0	
831604	SPN (C1017596)	83-85	SWW	3L	9.26	9.24	1345	77.0	P-FYELD
831605	WA7165	83-93	SWW	2M	9.09	9.11	1320	76.0	Q-SPONGE CAKE
831606	WA7163	83-102	SWW	3M	8.92	9.05	1280	72.0	Q-SPONGE CAKE
831607	WA7166	83-133	CLUB	4L	8.85	8.86	1285	72.0	Q-SPONGE CAKE & CODI
831608	WA7164	83-149	SWW	2M	8.96	9.02	1295	73.0	Q-SPONGE CAKE & CODI

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein

COMMENTS: None of the selections have good quality for all factors. See "REMARKS".

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

Q = Questionable; P = Poor



NURSCO 50

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
831609 WANSER (83-1)		C1013844	HRW	63.0	67.1	0.39	76.6	9.5	59.8	6M
831610 ORCR8312 (83-12)		84HRELT5	HRW	62.8	66.3	0.42	72.9	9.9	60.3	3M
831611 ORCR8319 (83-19)		84HRELT8	HRW	62.1	65.2	0.43	71.2	10.0	61.3	2H
831612 ORCR8320 (83-20)		84HRELT9	HRW	64.6	70.3	0.41	80.7	10.3	63.0	4H
831613 ORCR8412 (83-4)		84HRELT12	HRW	59.4	71.2	0.42	80.6	11.1	61.0	3M
831614 ORCR8413 (83-13)		84HRELT13	HRW	61.2	70.4	0.44	79.0	11.9	62.8	2H

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
831609 WANSER (83-1)		C1013844	HRW	61.5	62.0	3.2	800	831	3	P-LVOL&BCRGR
831610 ORCR8312 (83-12)		84HRELT5	HRW	63.4	63.5	2.5	665	671	8	P-LVOL&BCRGR
831611 ORCR8319 (83-19)		84HRELT8	HRW	64.5	64.5	2.4	600	600	9	P-LVOL&BCRGR
831612 ORCR8320 (83-20)		84HRELT9	HRW	67.0	66.7	3.9	750	731	6	P-LVOL&BCRGR
831613 ORCR8412 (83-4)		84HRELT12	HRW	65.3	64.2	2.4	700	632	7	P-LVOL&BCRGR
831614 ORCR8413 (83-13)		84HRELT13	HRW	68.9	67.0	2.3	795	677	4	P-LVOL&BCRGR

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: None of these selections have satisfactory bread baking properties, i.e. they are low in loaf volume and poor to very poor in bread crumb structure.



NURSCO 51

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC	RMKS
					1/ 1/	1/ 1/	1/ 1/	1/ 1/	3/ 3/			4/ 4/	
831615	OWENS (C1017904)	83SPSWA1	SWS	61.6	70.1	0.42	83.6	8.7	53.2	1L	9.35	9.21	
831616	TWIN (C1014588)	83SPSWA2	SWS	58.0	68.8	0.51	76.4	9.1	52.0	2M	9.36	9.26	
831617	FIELDER (C1017268)	83SPSWA3	SWS	56.8	69.2	0.56	73.8	10.3	56.5	3M	8.71	8.75	LOW T.W., P-MSCOR
831618	FIELDWIN (C1017425)	83SPSWA4	SWS	56.0	68.1	0.50	75.8	9.1	53.0	2M	8.96	8.86	LOW T.W., P-MSCOR
831619	E11728554-2E-4E-6E	83SPSWA12	SWS	64.0	69.8	0.53	76.3	11.1	56.7	3M	8.67	8.79	LOW CODI
831620	CM33483-F7 JUN.S	6/ 83SPSWA13	SWS	59.6	67.8	0.49	76.5	11.8	55.8	4M	8.74	8.94	Q-CODI
831621	CM43381-F8 CMT/MO//TRM	6/ 83SPSWA14	SWS	61.6	68.0	0.48	76.8	11.4	55.4	3M	8.96	9.12	
831622	CM43405-F8 CMT/YR//MON.S	83SPSWA15	SWS	62.0	66.8	0.46	76.9	11.3	55.8	2M	9.03	9.17	P-FYELD
831623	CM47768A-F8 IBWSN15173 BSV50//CAN.S//...	83SPSWA16	SWS	59.6	64.3	0.51	70.5	10.3	55.3	2M	8.72	8.75	P-FYELD&CODI
831624	DIRKWIN (C1017745)	83SPSWA17	SWS	60.0	70.4	0.50	78.7	10.0	53.1	1M	9.03	9.03	
831625	OWENS (C1017904)	83SPSWA18	SWS	59.6	68.0	0.49	76.7	10.1	55.1	2M	9.29	9.30	

1/ Observed Values Corrected to 14% Moisture Basis.5/ Particularly Promising Overall Quality Characteristics.3/ Absorption at 14% Moisture Corrected to 10% Protein.6/ Promising Overall Quality Characteristics.4/ Observed Values Corrected to 10% Protein.

COMMENTS: Selections 83SPSWA13 and 83SPSWA14 appear about equal to Owens or Twin, but typical of the poor milling quality of soft white spring wheats.

Q = Questionable; P = Poor



NURSCO 52

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
831626	MCKAY	C1017903	HRS	62.0	71.4	0.43	84.4	7.7	57.6	8M
831627	ANZA (C1015284)	83SPHRA3	HRS	61.2	69.1	0.43	82.3	10.0	58.0	1M
831628	BORAH (C1017267)	83SPHRA4	HRS	61.6	70.7	0.38	86.2	10.9	61.3	4M
831629	CM37705K-24-7M-3Y-1M-04 MINIVET, S	6/83SPHRA5	HRS	62.0	70.1	0.46	81.4	10.2	60.7	4M
831630	BS MEX 80001-K1	83SPHRA9	HRS	60.8	68.8	0.46	80.3	10.7	60.9	3M
831631	CM30136-3Y-1Y-1M-5Y-8-Y TITMOUSE, S	83SPHRA13	HRS	62.4	67.5	0.43	80.1	10.4	61.5	2H
831632	CM33203G-5M-6Y-M-Y-M-Y BOBWHITE, S	83SPHRA16	HRS	63.2	69.2	0.43	82.4	10.1	60.1	4M
831633	CM336821-1Y-1Y-4M-YBYM HAHN, S	83SPHRA17	HRS	59.6	69.0	0.49	78.9	11.9	58.4	2H
831634	CM37705K-2Y-7M-3Y-1M-0Y MINIVET, S	6/83SPHRA18	HRS	62.4	69.9	0.44	82.2	11.1	58.9	4H
831635	CM381996-1Y-1M-1Y-0M DORE, S	6/83SPHRA19	HRS	60.4	68.2	0.47	79.1	9.6	57.2	5M
831636	CM42398-27Y-3M-1Y-3M-YB AZT/PVN, S	83SPHRA22	HRS	64.0	68.0	0.29	88.1	9.7	61.8	6M
831637	CM43903H-4Y-2M-1Y-2M-YB KVZ/TRM...	83SPHRA23	HRS	62.8	71.3	0.42	84.8	11.7	60.1	2H
831638	CM31678-F10-4 BUC.S	83SPHRA24	HRS	61.2	70.1	0.48	80.4	11.8	60.7	2H
831639	CM31678-F09-6 BUC.S	83SPHRA25	HRS	60.8	69.3	0.39	84.2	10.7	60.8	2H
831640	CM33023-F8 BUC.S	83SPHRA28	HRS	61.2	68.6	0.46	80.1	10.2	58.2	3M
831641	CM3992-F6 JUP/BJY.S	83SPHRA29	HRS	63.6	65.5	0.42	78.6	10.4	62.9	8M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 52

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			3/		
831626	MCKAY	C1017903	HRS	57.5	59.8	4.7	810	953	5	
831627	ANZA (C1015284)	83SPHRA3	HRS	59.2	59.2	1.1	745	745	9	
831628	BORAH (C1017267)	83SPHRA4	HRS	64.4	63.5	2.5	940	884	2	
831629	CM37705K-24-7M-3Y-1M-04 MINIVET, S	83SPHRA5	HRS	63.1	62.9	3.0	960	948	2Q-FASH	
831630	BS MEX 80001-K1	83SPHRA9	HRS	62.3	61.6	2.2	960	917	2Low FYELD	
831631	CM30136-3Y-1Y-1M-5Y-8-Y TITMOUSE, S	83SPHRA13	HRS	64.1	63.7	2.1	905	880	4P-FYELD,BCRGR	
831632	CM33203C-5M-6Y-M-Y-M-Y BOBWHITE, S	83SPHRA16	HRS	62.4	62.3	2.7	845	839	8P-LVOL&BCRGR	
831633	CM336821-1Y-1Y-4M-YBYM HAHN, S	83SPHRA17	HRS	61.5	59.6	1.3	910	792	6P-MTIME&BCRGR	
831634	CM37705K-2Y-7M-3Y-1M-0Y MINIVET, S	83SPHRA18	HRS	63.2	62.1	2.9	940	872	2	
831635	CM381996-1Y-1M-1Y-0M DORE, S	83SPHRA19	HRS	60.5	60.9	3.0	905	930	3Q-FYELD	
831636	CM42398-27Y-3M-1Y-3M-YB AZI/PVN, S	83SPHRA22	HRS	65.7	66.0	5.1	825	844	6P-BCRGR	
831637	CM43903H-4Y-2M-1Y-2M-YB KVZ/TRM...	83SPHRA23	HRS	63.0	61.3	1.5	955	850	4P-MTIME&BCRGR	
831638	CM31678-F10-4 BUC. S	83SPHRA24	HRS	64.7	62.9	1.7	980	868	2P-MTIME	
831639	CM31678-F09-6 BUC. S	83SPHRA25	HRS	63.7	63.0	1.8	875	832	5P-MTIME&BCRGR	
831640	CM33023-F8 BUC. S	83SPHRA28	HRS	60.6	60.4	2.3	800	788	6P-LVOL&BCRGR	
831641	CM3992-F6 JUP/BJY. S	83SPHRA29	HRS	69.5	69.1	4.4	838	813	4 P-FYELD&BCRGR	

COMMENTS: Many of these selections lack desirable dough mixing and bread making properties. See "Remarks" column. The most promising of those footnoted for satisfactory overall quality is No. 83SPHRA5.

Q = Questionable; P = Poor



USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

## ELITE SPRING WHEAT

CORVALLIS, OR

W.E. KRONSTAD

NURSCO 53

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/		1/	3/		
831642	MCKAY (ID0167)	C1017903	HRS	62.4	71.1	0.43	84.0	9.7	56.4	4M	57.3
831643	SHASTA	C1003976	HRS	62.4	66.6	0.46	77.8	9.4	59.6	4M	60.2
831644	BORAH	C1017267	HRS	59.2	69.0	0.44	81.6	10.9	60.6	6M	64.7
831645	MPC770928 (83SPELT6)	OS8306	HRS	59.6	66.0	0.48	76.0	10.6	58.4	7M	63.2
831646	SWM6367-1Y-4K-OK CTK/CNO//EMU (83SPELT9)	OS8309	HRS	62.4	63.1	0.49	72.9	10.9	58.1	3M	62.7
831647	SWM6367-5Y-2K-OK CTK/CNO//EMU (83SPELT10)	OS8310	SRS	60.4	66.5	0.46	76.2	9.8	54.5	2M	56.5
831648	KBWN750020 PV18A/CNO (83SPELT11)	OS8311	HRS	63.2	70.1	0.43	83.4	9.9	57.9	4M	60.0
831649	MPC750573 (83SPELT12)	OS8312	HRS	60.8	66.8	0.54	74.0	10.7	59.4	4H	62.8
831650	MPC770302 (83SPELT13)	OS8313	HRS	64.4	68.9	0.45	81.0	10.0	61.2	4H	64.9
831651	PC790501 CM37705, F5 MNV S (83SPELT14)	OS8314	HRS	64.8	68.0	0.48	78.3	9.9	62.1	5H	65.2
831652	BUCK BUCK S (83SPELT17)	OS8317	HRS	60.0	67.7	0.51	76.3	11.1	62.7	2H	66.0
831653	OWENS (ID0185)(83SPELT18)	C1017904	SWS	62.0	67.6	0.43	79.9	7.8	55.1	3L	53.1

1/ Observed Values Corrected to 14% Moisture Basis.

5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 10% Protein.



USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

NURSCO 53

ELITE SPRING WHEAT

CORVALLIS, OR

W.E. KRONSTAD

CONTD. PAGE 1

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	LVOL	LVOLC	BCRGR	CODI	CODIC	RMKS
				3/			4/			4/	
831642	MCKAY (ID0167)	C1017903	HRS	57.6	3.0	900	919	3			
831643	SHASTA	C1003976	HRS	60.8	2.4	875	912	2			
831644	BORAH	C1017267	HRS	63.8	3.7	910	854	3			
831645	MPCT770928 (83SPELT6)	OS8306	HRS	62.6	3.4	825	788	6			P-FYELD,LVOL,BCRGR
831646	SWM6367-1Y-4K-OK CTK/CNO//EMU (83SPELT9)	OS8309	HRS	61.8	2.2	740	684	9			VP-FYELD,LVOL,BCRGR
831647	SWM6367-5Y-2K-OK CTK/CNO//EMU (83SPELT10)	OS8310	SRS	56.7	1.6	640	652	9	8.71	8.69	P-FYELD
831648	KBWN750020 PV18A/CNO (83SPELT11)	OS8311	HRS	60.1	2.7	875	881	3			
831649	MPCT750573 (83SPELT12)	OS8312	HRS	62.1	3.0	920	877	2			P-FYELD
831650	MPCT770302 (83SPELT13)	OS8313	HRS	64.9	3.0	840	840	6			P-LVOL&BCRGR
831651	PC790501 CM37705,F5 MNV S (83SPELT14)	OS8314	HRS	65.3	4.0	895	901	2			Q-FYELD
831652	BUCK BUCK S (83SPELT17)	OS8317	HRS	64.9	2.1	925	857	3			P-FYELD
831653	OWENS (ID0185)(83SPELT18)	C1017904	SWS	55.3	1.6	755	887	9	9.32	9.08	P-FYELD

COMMENTS: Note OS8310 is a soft red selection. OS8311 and OS8314 appear to have some promise as HRS's.

VP = Very Poor; P = Poor; Q = Questionable





WESTERN REGIONAL WHITE WINTER WHEAT

WA, ID, OR

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC
						1/ 3/		1/ 3/	
831654	KHARKOF	C1001442	HRW	61.8	69.9	0.35	87.1	9.6	55.4
831655	ELGIN	C1011755	CLUB	60.4	72.5	0.41	87.3	8.0	49.5
831656	MORO	C1013740	CLUB	60.1	72.4	0.41	87.2	8.3	48.5
831657	MUGAINES	C1013698	SWW	61.9	69.0	0.37	87.3	8.2	50.9
831658	STEPHENS	C1017596	SWW	59.1	70.1	0.40	84.9	8.5	51.6
831659	FARO	C1017590	CLUB	59.0	71.2	0.40	86.3	8.3	49.3
831660	HILL 81 (OR68007)	C1017954	SWW	60.6	72.4	0.42	86.5	8.8	50.4
831661	WA4765//BURT/P1178383	10745318	SWW	58.9	65.2	0.42	77.4	8.5	49.4
831662	CREW	C1017951	CLUB	59.7	71.7	0.41	86.3	8.0	48.8
831663	TYEE	C1017773	CLUB	59.3	71.5	0.37	88.6	7.8	49.5
831664	REW/LUKE, SEL.305	6/OR7794	SWW	62.2	70.3	0.37	87.0	7.6	51.2
831665	C11448/MORO, SEL.E109	6/OR797	SWW	61.2	69.6	0.38	85.5	8.1	51.2
831666	DAWS/WA5829, VH079141	6/WA6696	SWW	61.3	69.9	0.41	84.0	8.1	51.2
831667	SW92/6*0/3/T.SP/CTL//3*0	6/WA6698	CLUB	61.2	71.7	0.41	86.3	8.5	47.5
831668	LUKE/VH76375	5/WA6813	SWW	59.5	72.7	0.40	88.2	7.6	50.9
831669	PAHA/OR6857, SEL.204	5/OR7792	CLUB	61.7	72.7	0.40	88.2	8.6	50.2
831670	CJPC/LUB/SPRAGUE 3/	WA6819	SWW	61.0	69.9	0.42	83.3	8.5	48.7
831671	SCT/101//3469/P1178383/S1, AM07974	WA6914	SWW	62.7	69.8	0.41	83.9	8.3	52.8
831672	MARIS HUNTSMAN/VH74521, VH08490	WA6910	SWW	60.3	70.7	0.42	84.4	8.8	51.0
831673	WA6240/NORCO, VJ080129	WA6911	SWW	62.2	68.5	0.41	82.2	8.1	49.1
831674	BVR/C115923/NCS, VH074575	6/WA6912	SWW	61.7	70.3	0.41	84.5	8.6	50.5
831675	1523 DRC DWF/YMH	ORCW8110	SWW	57.3	68.3	0.42	81.3	8.5	49.4
831676	SPN/63189-66-71/BEZ	6/ORCW8113	SWW	60.2	69.6	0.40	84.2	8.2	49.3
831677	1523 DRC/RBS	6/ORCP04	SWW	59.2	69.7	0.40	84.4	8.7	49.1
831678	1523 DRC/RBS	6/ORSEL.835	SWW	60.1	70.0	0.38	86.0	8.5	49.3
831679	SPRAGUE/LUKE//498,B77-136	WA6915	SWW	61.3	68.2	0.41	81.8	8.7	49.5
831680	HYS/YAYLA//WA4995/3/CERCO,W-1980	OR7996	SWW	60.5	67.4	0.41	80.8	8.4	50.7
831681	DRC/68-23,OWW68109-1M6,R241	OR7956	SWW	57.3	68.0	0.42	80.9	9.0	50.4
831682	P1173467/GNS,SEL.292-1//MORO,77261	6/WA7050	CLUB	59.7	72.0	0.41	86.7	8.1	50.1
831683	NORCO/VH72297,VH080717	WA7047	SWW	61.0	69.1	0.41	83.0	7.9	51.9
831684	HYS/NORCO//CAMA///SM4,A1358	OR8188	SWW	61.0	70.3	0.42	83.9	7.9	52.0
831685	PHOENIX,WW33	C1017962	HWW	63.9	70.1	0.37	86.3	9.0	56.3

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

## WESTERN REGIONAL WHITE WINTER WHEAT

WA, ID, OR

NURSCO 54

LABNUM	VARIETY	IDNO	CLASS	MTYPE	CODI	CODIC 4/	CAVOL	SCSOR	RMKS
831654	KHARKOF	C1001442	HRW	3M	8.27	8.40	1205	70.0	Long T. Check
831655	ELGIN	C1011755	CLUB	1L	9.26	9.26	1410	85.0	
831656	MORO	C1013740	CLUB	2L	9.12	9.15	1345	80.0	
831657	NUGAINES	C1013698	SWW	3L	9.26	9.29	1315	76.0	
831658	STEPHENS	C1017596	SWW	2L	9.24	9.29	1355	80.0	
831659	FARO	C1017590	CLUB	2L	9.10	9.12	1355	83.0	
831660	HILL 81 (OR68007)	C1017954	SWW	2L	9.42	9.51	1360	80.0	
831661	WA4765//BURT/PI178383	ID745318	SWW	4L	9.20	9.25	1295	75.0	P-FYELD,Q-CAVOL
831662	CREW	C1017951	CLUB	1L	9.00	9.00	1335	79.0	
831663	TYEE	C1017773	CLUB	3L	9.39	9.37	1340	79.0	
831664	REW/LUKE, SEL.305	OR7794	SWW	1L	9.07	9.03	1320	78.0	
831665	C11448/MORO, SEL.E109	OR797	SWW	2M	9.21	9.22	1280	74.0	Q-SCSOR
831666	DAWS/WA5829, VH079141	WA6696	SWW	3L	9.11	9.12	1275	76.0	
831667	SW92/6*0/3/T.SP/CTL//3*0	WA6698	CLUB	1L	9.20	9.24	1330	78.0	
831668	LUKE/VH76375	WA6813	SWW	3L	9.34	9.29	1320	78.0	
831669	PAHA/OR6857.SEL.204	OR7792	CLUB	3L	9.39	9.43	1325	75.0	Q-MILLING,P-CAVOL
831670	CJPC/CLUB/SPRAGUE 3/	WA6819	SWW	3L	9.17	9.23	1260	73.0	P-CAVOL,CODI
831671	SCT/101//3469/PI178383/S1, AM07974	WA6914	SWW	4M	8.77	8.81	1190	67.0	P-CODI,CAVOL
831672	MARIS HUNTSMAN/VH74521, VH08490	WA6910	SWW	2M	8.67	8.76	1255	73.0	P-FYELD
831673	WA6240/NORCO, VJ080129	WA6911	SWW	1L	9.72	9.74	1420	82.0	
831674	BVR/C115923/NGS, VH074575	WA6912	SWW	4M	9.44	9.50	1355	78.0	
831675	1523 DRC DWF/YMH	ORCW8110	SWW	2L	9.15	9.20	1375	80.0	P-FYELD
831676	SPN/63189-66-71/BEZ	ORCW8113	SWW	2L	9.26	9.28	1300	76.0	Q-SCSOR
831677	1523 DRC/RBS	ORCP04	SWW	2L	9.32	9.40	1355	79.0	
831678	1523 DRC/RBS	ORSEL.835	SWW	2L	9.09	9.14	1370	79.0	
831679	SPRAGUE/LUKE//498,B77-136	WA6915	SWW	2M	9.57	9.65	1355	79.0	P-FYELD
831680	HYS/YAYLA//WA4995/3/CERCO,W-1980	OR7996	SWW	4L	9.19	9.23	1280	76.0	P-FYELD,CAVOL
831681	DRC/68-23,OWM68109-1M6,R241	OR7956	SWW	2M	8.97	9.08	1260	74.0	P-FYELD,CAVOL
831682	PI173467/GNS,SEL.292-1//MORO,77261	WA7050	CLUB	3L	9.36	9.37	1335	76.0	
831683	NORCO/VH72297,VH080717	WA7047	SWW	3L	9.29	9.28	1270	70.0	Q-MILLING,P-CAVOL
831684	HYS/NORCO//CAMA///SM4,A1358	OR8188	SWW	3L	8.86	8.85	1250	69.0	P-CODI,CAVOL
831685	PHOENIX,WV33	C1017962	HWW	3M	8.37	8.45	1145	60.0	Hard White

COMMENTS: Please see "Remarks" for those selections which have deficiencies. The most common deficiency was poor flour yield. The selections with good overall quality are footnoted.

P = Poor; Q = Questionable

ADDITIONAL COMMENTS: Because of the stronger dough mixing properties of WA6914 and WA6912 bread tests were made. The loaf volume and crumb scores were 760 and 798, and 6 and 7, respectively. The loaf volumes were acceptable for the protein (8.3 and 8.6), but the crumb structure was poor.



LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
831686	KHARKOF	C1001442	HRW	61.6	67.8	0.36	84.4	11.4	60.4	4M
831687	WANSER	C1013844	HRW	61.9	70.0	0.35	87.2	11.7	61.0	3H
831688	WESTON	C1017727	HRW	63.7	71.4	0.35	88.7	12.0	62.2	2H
831689	BEZOSTAJA//BURT/178383/3/ARK	ID51021	HRW	62.7	64.3	0.35	86.5	12.1	63.1	2H
831690	BEZOSTAJA//BURT/178383/3/ARK	ID51022	HRW	61.7	60.9	0.34	78.2	12.6	62.1	2H
831691	TRIUMPH/LANCER, SEL. 126	OR792	HRW	61.1	65.3	0.35	82.3	11.4	59.4	4M
831692	FRD/BEZ	MT77002	HRW	62.1	71.6	0.35	88.9	12.3	61.8	4M
831693	C61--9/WLT//CRT	MT77066	HRW	62.5	70.6	0.38	86.3	11.3	60.5	2H
831694	WINRIDGE	C101902	HRW	62.2	71.8	0.36	88.6	11.2	60.1	2H
831695	BEZOSTAJA/SPRAGUE, SEL. 18-24	OR7921	HRW	62.0	68.1	0.36	84.7	10.8	60.0	2M
831696	CLARIFEN/WA5836, SEL. 27-26	6/OR7925	HRW	60.2	70.0	0.36	86.7	10.9	60.6	6M
831697	SM4/TD//3*IT/PI178383	ID0216	HRW	61.8	70.4	0.36	87.1	12.2	60.5	2H
831698	A667M-46/RANGER	6/ID0217	HRW	63.2	73.1	0.36	89.9	12.0	61.2	4H
831699	WA4765/3/BEZOSTAJA//BURT/178383	6/ID3518	HRW	59.6	67.6	0.35	84.7	11.2	58.9	4M
831700	ID5012/WA5866	WA6816	HRW	61.7	71.3	0.35	88.6	10.1	60.0	3M
831701	DLM/PI173438//CLM/3/DLM/4/C19342/IT/5/HN	UT125327 6/	HRW	61.5	68.6	0.35	85.7	11.4	60.4	4H
831702	SM4/TD//3*IT/PI178383	ID0242	HRW	62.2	71.5	0.36	88.1	12.1	59.7	2H
831703	1160-155/C114106//MC/6/RGR/5/FRC/FRN/YQ/	ID0245	HRW	62.6	71.5	0.35	88.8	11.6	59.9	4M
831704	ALBA/GNS//FN/SONORA 64	ORCR8107 6/	HRW	62.3	69.7	0.35	86.9	11.6	60.9	3H
831705	JEFF//11-60-155/C114106//MC, A7389W-338-	ID0259 6/	HRW	62.4	70.7	0.34	88.5	11.6	62.2	4H
831706	DLM/PI173438//CLM//DLM/4/JEFF, A7224W-B	ID0260 6/	HRW	62.8	69.1	0.36	85.7	12.1	62.5	4H
831707	BURT/C112929//DLM/4/NBR//NRN10/BVR/CNN/	ID0261 6/	HRW	61.4	72.4	0.39	88.5	11.3	62.7	4H
831708	WRR/C113837//PI173438//HANSEL	UT132569 6/	HRW	61.5	72.7	0.38	82.0	11.1	60.9	6M
831709	KR/SVE//RDT//IT/4/PI173438/5/DLM/PI1783	UT132712 6/	HRW	62.4	70.5	0.34	88.2	11.6	62.6	3H
831710	GWB127/GWB236//GWB236-7/STURDY	WA6820 6/	HRW	61.9	69.8	0.34	87.5	11.7	62.0	3H
831711	LIND SEL. A	6/ WA7048	HRW	62.5	71.1	0.35	88.3	10.6	62.0	3H
831712	LIND SEL. B	WA7049	HRW	61.3	69.6	0.35	86.8	10.3	60.0	4M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.  
NURSCO 55  
WA, MT

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
831686	KHARKOF	C1001442	HRW	62.5	62.1	3.0	990	967	2	
831687	WANSER	C1013844	HRW	63.9	63.2	3.0	985	937	2	
831688	WESTON	C1017727	HRW	65.4	64.4	2.0	1050	988	2	
831689	BEZOSTAJA//BURT/178383/3/ARK	ID51021	HRW	66.9	65.8	1.9	1040	972	2P-MTIME	
831690	BEZOSTAJA//BURT/178383/3/ARK	ID51022	HRW	64.4	62.8	2.1	1120	1021	2P-FYELD&MTIME	
831691	TRIUMPH/LANCER, SEL. 126	OR792	HRW	62.0	61.6	3.0	980	955	3P-FYELD&Q-BCRGR	
831692	FRD/BEZ	MT77002	HRW	65.8	64.5	2.8	950	869	2Q-LVOL	
831693	C61-9/MLT//CRT	MT77066	HRW	61.0	60.7	1.3	1020	1001	4P-MTIME&BCRGR	
831694	WINRIDGE	C101902	HRW	60.0	59.8	1.3	1040	1028	3P-MTIME&BCRGR	
831695	BEZOSTAJA/SPRAGUE, SEL. 18-24	OR7921	HRW	60.0	60.2	1.1	950	962	6P-MTIME&BCRGR	
831696	CLARIFEN/WA5836, SEL. 27-26	OR7925	HRW	64.2	64.3	3.6	968	974	3Q-BCRGR	
831697	SM4/TD//3*IT/PI178383	ID0216	HRW	62.9	61.7	1.8	1005	931	2P-MTIME	
831698	A667W-46/RANGER	ID0217	HRW	63.9	62.9	3.3	980	918	2	
831699	WA4765/3/BEZOSTAJA//BURT/178383	ID3518	HRW	59.8	59.6	3.1	973	961	2Q-FYELD	
831700	ID5012/WA5866	WA6816	HRW	61.3	62.2	3.2	925	981	5P-BCRGR	
831701	DLM/PI173438//CLM/3/DLM/4/C19342/IT/5/HN	UT125327	HRW	64.0	63.6	3.8	1000	975	2Q-FYELD	
831702	SM4/TD//3*IT/PI178383	ID0242	HRW	62.0	60.9	2.0	960	892	2P-MTIME&LVOL	
831703	I160-155/C114106//MC/6/RGR/5/FRC/FRN/YQ/	ID0245	HRW	62.7	62.1	3.1	940	903	3Q-LVOL&BCRGR	
831704	ALBA/GNS//FN/SONORA 64	ORCR8107	HRW	63.7	63.1	2.4	985	948	2	
831705	JEFF//I1-60-155/C114106//MC, A7389W-338-	ID0259	HRW	65.5	64.9	3.1	1015	978	2	
831706	DLM/PI173438//CLM//DLM/4/JEFF, A72244W-B	ID0260	HRW	66.3	65.2	2.8	1040	972	2	
831707	BURT/CI12929//DLM/4/NBR//NRN10/BVR/CNN/	ID0261	HRW	65.2	64.9	3.6	1005	986	2	
831708	WRR/CI13837//PI173438//HANSEL	UT132569	HRW	62.2	62.1	3.0	965	959	3Q-BCRGR	
831709	KR/SVE//RDT//IT/4/PI173438/5/DLM/PI1783	UT132712	HRW	66.4	65.8	3.1	960	923	2	
831710	GWB127/GWB236//GWB236-7/STURDY	WA6820	HRW	63.4	62.7	3.0	975	932	2	
831711	LIND SEL.A	WA7048	HRW	65.3	65.7	2.6	930	955	3Q-BCRGR	
831712	LIND SEL.B	WA7049	HRW	60.0	60.7	2.7	918	961	4P-BCRGR	

COMMENTS: See the footnotes for those satisfactory in overall milling and baking quality, and "Remarks" for deficiencies of other selections.  
Short and weak dough mixing and heavy coarse bread crumb are the most common serious deficiencies.

P = Poor; Q = Questionable





WA, ID, MT, OR

NURSCO 56

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/		1/	3/		
831713	MCKAY	C1017903	HRS	61.6	72.1	0.37	88.3	10.6	56.7	6M	61.5
831714	BANNOCK/738-274-1	UT541774	HRS	60.8	69.2	0.33	87.4	10.7	57.6	4M	62.5
831715	BORAH/3/MRN//PJSIB/G855,A44165-24-1	5/ID0238	HRS	60.8	71.5	0.34	89.3	11.8	61.5	5H	68.0
831716	TZPP/AN3//B61-136AB SEL1/3/11-60-157/MC/	ID0247	HRS	61.2	69.3	0.36	85.9	10.6	60.1	5H	67.3
831717	UTAH W498-259/PROSPUR	6/UT0209	HRS	57.6	69.7	0.36	86.4	10.7	62.0	6H	65.4
831718	UTAH W498-165/BORAH	6/UT2746	HRS	60.7	69.8	0.44	82.3	11.2	61.1	3H	66.5
831719	BANNOCK/738-274-1	UT541815	HRS	57.9	69.6	0.37	85.7	9.5	58.2	6M	60.9
831720	BANNOCK/738-274-1	UT541842	HRS	60.7	69.6	0.34	87.3	10.7	59.8	5H	63.7
831721	BANNOCK/738-274-1	UT541954	HRS	57.7	69.8	0.34	87.5	10.5	58.1	6M	61.8
831722	ABERDEEN SELECTION	6/ID0258	HRS	61.2	72.4	0.38	88.1	11.2	59.5	5H	63.9
831723	ABERDEEN SELECTION	6/ID0262	HRS	59.9	69.7	0.37	85.8	11.1	61.9	5H	66.2
831724	ABERDEEN SELECTION	6/ID0263	HRS	62.1	72.7	0.37	89.0	10.9	57.9	6H	62.0
831725	CTK/CNO//EMU	ORS6367	HRS	58.9	63.5	0.41	77.3	10.4	58.2	3M	61.8
831726	CTK/CNO//EMU	OR750573	HRS	60.3	67.2	0.41	81.1	10.7	59.4	5H	63.3
831727	K73579/BORAH	WA7075	HRS	60.6	71.3	0.40	85.9	11.4	60.2	3H	64.8
831728	K74153/WA6096//ATL66/NAP HAL-34	WA7076	HRS	61.8	72.1	0.39	87.3	11.0	59.3	4H	64.5
831729	ABERDEEN SELECTION	ID0250	SRS	59.3	60.8	0.36	75.6	8.9	52.5	2M	
831730	OWENS	C1017904	SWS	60.5	67.5	0.40	81.6	9.3	51.9	2M	
831731	WAVERLY	C1017911	SWS	58.8	68.6	0.39	83.6	9.7	54.4	3M	
831732	FEDERATION	C1004734	SWS	57.2	65.9	0.42	78.3	9.3	52.1	2M	
831733	POTAM 70/WA6021, K7905209	6/WA6831	SWS	58.3	67.7	0.39	82.5	9.2	52.4	2M	
831734	FBR/5/BB11/4/7*SFL/3/AS/FR//A63167S-A-1	5/ID0236	SWS	59.9	70.0	0.40	84.7	8.7	52.1	2M	
831735	ID0067*2/BB"5"RESEL., A73341S-23-4	ID0227	SWS	57.9	66.7	0.43	78.6	8.8	51.3	2M	
831736	BB11/4/7*SFL/3/AS/FR//A63167S-A-1-50-45	6/ID0246	SWS	59.1	68.4	0.41	82.1	9.4	52.9	2M	
831737	POTAM 70/WA6021, K7905130	6/WA6916	SWS	60.1	68.1	0.43	80.4	9.3	52.0	2M	
831738	POTAM 70/WA6021, K7905130	6/WA6917	SWS	60.9	68.7	0.43	81.2	9.3	52.6	2M	
831739	POTAM 70/WA6021, K7905130	6/WA6918	SWS	60.1	67.7	0.43	79.9	9.3	53.5	3M	
831740	POTAM 70/WA6021, K7905130	6/WA6919	SWS	60.3	67.5	0.43	79.7	9.3	52.0	2M	
831741	POTAM 70/WA6021, K7905130	6/WA6920	SWS	60.3	68.1	0.43	80.4	9.6	51.9	3M	
831742	ABERDEEN SELECTION	5/ID0248	SWS	60.2	70.5	0.40	85.4	8.7	52.1	3M	
831743	ABERDEEN SELECTION	6/ID0249	SWS	59.3	67.4	0.41	80.8	9.2	51.7	2M	
831744	STEREEN SELECTION	6/ID0174	SWS	57.8	68.5	0.43	80.9	9.3	52.6	3M	
831745	ST5958/ARANA	ORS06558	HWS	60.2	67.8	0.41	81.3	9.9	56.4	3M	58.0
831746	HORK/YMH//KA//BB	OR791432	HWS	61.3	71.8	0.39	87.7	9.9	58.6	6M	64.2
831747	HORK/YMH//KA//BB	ORS44421	HWS	59.8	69.3	0.39	84.5	9.6	57.2	4M	58.0

1/ Observed Values Corrected to 10% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.







WA, ID, MT, OR

NURSCO 56

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
831748	PTM70/WA6021, BRONS/KOEL12-7941, 570-5	WA7073	SWS	60.7	66.7	0.43	78.6	9.1	52.4	3M	
831749	PTM70/WA6021, BRONS/KOEL12-7941, 570-5	6/WA7074	SWS	60.9	67.4	0.41	80.8	9.7	52.3	3M	





WA, ID, MT, OR

NURSCO 56

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	LVOL	LVOLC	BCRGR	CODI	CODIC	RMKS
831748	PTM70/WA6021, BRONS/KOEL12-7941, 570-5	WA7073	SWS						8.90	8.80 Q-CODI, MILLING	
831749	PTM70/WA6021, BRONS/KOEL12-7941, 570-5	WA7074	SWS						9.16	9.13	
				3/			4/			4/	

COMMENTS: See footnotes for the selections with good overall quality. NOTE: Many of the soft white selections were lower than desirable in flour yield, but were similar to the check varieties and were scored accordingly. See "Remarks" for deficiencies and questionable properties. Composite of equal parts was made from all locations in ID, OR, MT, and WA.

Q = Questionable; P = Poor; VP = Very Poor.



NURSCO 57

BET-DAGAN, ISRAEL

M. ZUR

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	W/PRO* FPROT	MABSC	MTYPE
						1/		1/	3/	
831750		1108/83	HRW	59.2	69.5	0.39	84.5	14.5	59.8	6M
831751		1115/83	HRW	57.0	69.5	0.46	80.9	14.4	65.5	5H
831752		1116/83	HRW	60.0	65.7	0.32	84.5	16.8	64.4	2H
831753		1117/83	HRW	61.0	66.2	0.32	84.9	16.8	65.0	2H
831754		1150/83	HRW	56.2	69.2	0.47	79.9	14.9	64.1	3H
831755		1166/83	HRW	59.8	69.7	0.43	82.8	13.2	60.1	2M
831756		1190/83	HRW	60.2	66.6	0.37	82.5	14.7	63.4	4H
831757		1287/83	HRW	59.8	71.8	0.39	87.0	14.7	60.1	3M
831758		1335/83	HRW	58.8	70.4	0.47	81.2	14.6	61.9	4H
831759		1342/83	HRW	53.5	70.3	0.51	79.4	14.8	64.7	5H
831760		1393/83	HRW	54.8	71.1	0.43	84.1	14.7	62.5	2H
831761		1404/83	HRW	59.7	66.5	0.40	80.7	14.8	60.1	6M
831762		1405/83	HRW	56.8	64.8	0.41	78.9	14.2	59.6	6L

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
831750		1108/83	HRW	63.1	63.9	3.3	920	970	2	2 Q-FASH
831751		1115/83	HRW	68.1	68.1	4.9	920	920	2	
831752		1116/83	HRW	68.8	66.0	2.3	1093	919	2	
831753		1117/83	HRW	68.7	66.6	1.9	978	848	2	P-MTIME&LVOL
831754		1150/83	HRW	67.3	66.7	3.1	920	883	3	
831755		1166/83	HRW	61.8	62.7	2.3	805	861	8	VP-LVOL&BCRGR
831756		1190/83	HRW	70.3	69.5	3.3	978	928	2	
831757		1287/83	HRW	62.8	61.7	2.2	920	852	4	Q=MTIME&LVOL
831758		1335/83	HRW	64.2	64.5	3.2	920	939	2	
831759		1342/83	HRW	67.3	67.3	4.6	978	978	1	P-FASH
831760		1393/83	HRW	64.7	64.1	1.8	863	826	8	P-MTIME, LVOL&BCRGR
831761		1404/83	HRW	64.4	64.7	4.1	863	882	2	Q-MILLING&LVOL
831762		1405/83	HRW	65.1	65.2	4.1	920	926	2	Q-MILLING

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

## COMMENTS:

These samples of high protein Dicoccides derivatives were evaluated by micro (10g) baking tests, with loaf volumes adjusted to 100g basis. A few had low milling scores due to high flour ash. Protein content was significantly different among them. Loaf volume was corrected to an average of 11%. Wheat to flour protein conversion ratio showed an unusual high loss. See "Remarks" for deficiencies.

\* Bet-Dagen



NURSCO 58

PULLMAN, WA

LABNUM	VARIETY	IDNO	CLASS	FYELD	FASH	FPROT	MABSC	MTYPE	VISC	VISCC
					1/	1/	3/			
831763 DAWs		C1017419	SWW	75.9	0.42	7.2	53.8	2L	70	94
831764		5/OR7794	SWW	73.6	0.37	7.5	53.7	2L	60	72
831765		OR7796	SWW	76.1	0.43	7.7	54.3	4L	55	61
831766		OR8188	SWW	75.5	0.39	8.0	55.2	4L	63	63
831767		WA6910	SWW	71.9	0.40	8.8	53.5	2M	72	57
831768 PAHA		C1014485	CLUB	77.2	0.42	7.3	50.1	1L	28	36
831769		5/WA6698	CLUB	76.7	0.39	7.2	50.0	1L	33	44
LABNUM	VARIETY	IDNO	CLASS	CODI	CODIC	CAVOL	SCSOR	WTIN	NOSCO	RMKS
					4/					
831763 DAWs		C1017419	SWW	8.62	8.54	1191	71.0	367	730-CODI&CAVOL	
831764		OR7794	SWW	8.85	8.79	1204	71.0	367	74	
831765		OR7796	SWW	8.86	8.83	1182	70.0	362	71P-NOSCO	
831766		OR8188	SWW	8.70	8.70	1145	67.0	361	70P-CAVOL&NOSCO	
831767		WA6910	SWW	8.35	8.44	1198	69.0	367	71P-CODI&NOSCO, FYELD	
831768 PAHA		C1014485	CLUB	9.24	9.21	1296	78.0	381	75	
831769		WA6698	CLUB	8.97	8.92	1249	74.0	386	75	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: The flours from the SWW wheats were found to be abnormal in all baking tests. No plausible cause is known. Milling properties appeared normal and quite good with the exception of WA6910 which was very vitreous in appearance and was found hard and granular in texture. Paha and experimental selection WA6698 were near normal. Because of the abnormal baking properties of the five SWW, including Daws, we decided it would be unwise and most probably meaningless to send these flours to the PNW industry collaborators for their evaluation. The spring wheats in the 83 crop nursery were discarded prior to milling because of shriveling and high protein (near 13%). See pages 2 and 3 for cumulative ash curves from the milling tests.





PNW COLLABORATIVE TESTS  
NURSCO 58

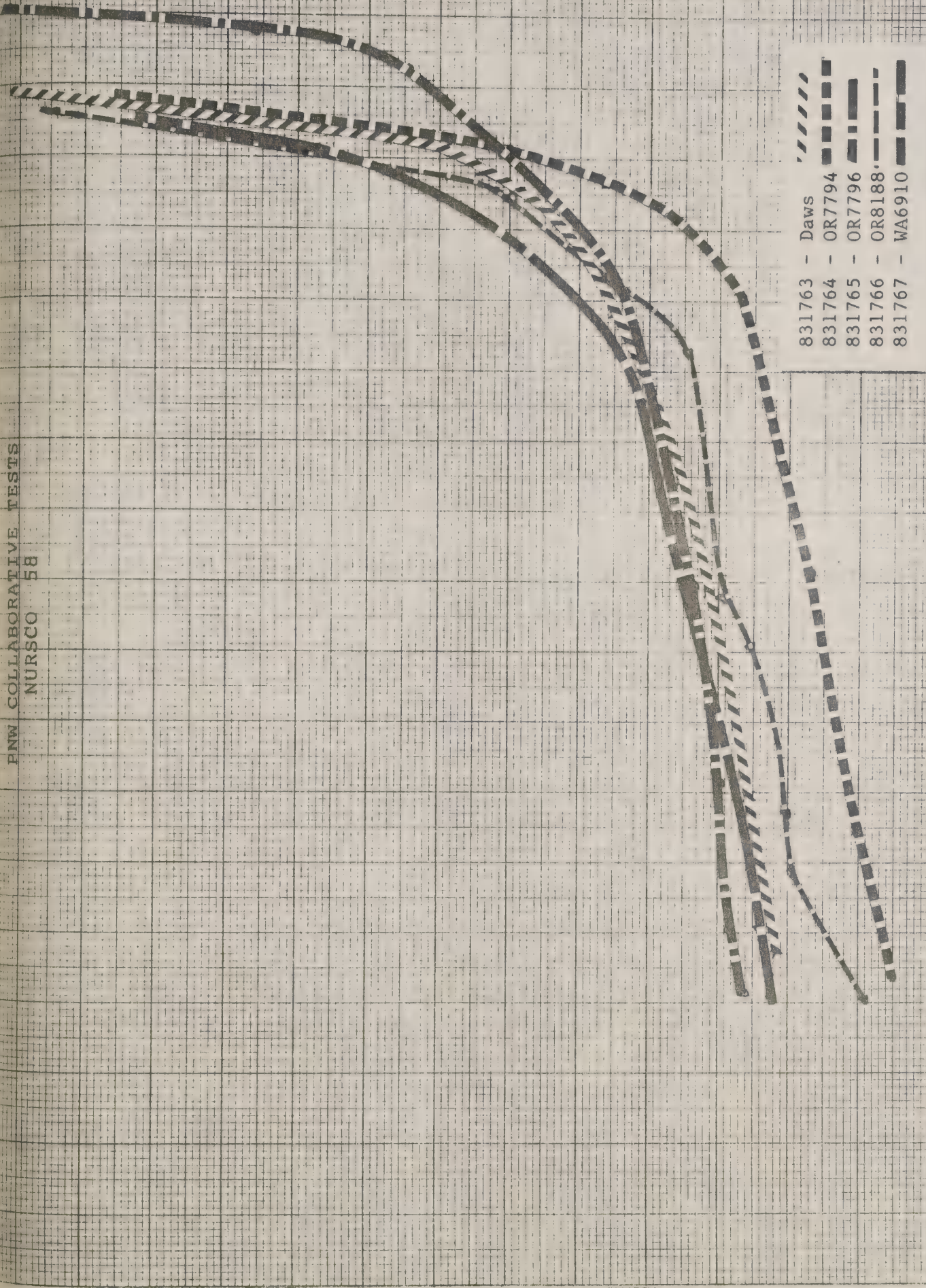
.54  
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.38  
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.34  
.32  
.30

% ASH (14% M.B.)

831763 - Daws  
831764 - OR7794  
831765 - OR7796  
831766 - OR8188  
831767 - WA6910

10 20 30 40 50 60 70 80

% of Total Products







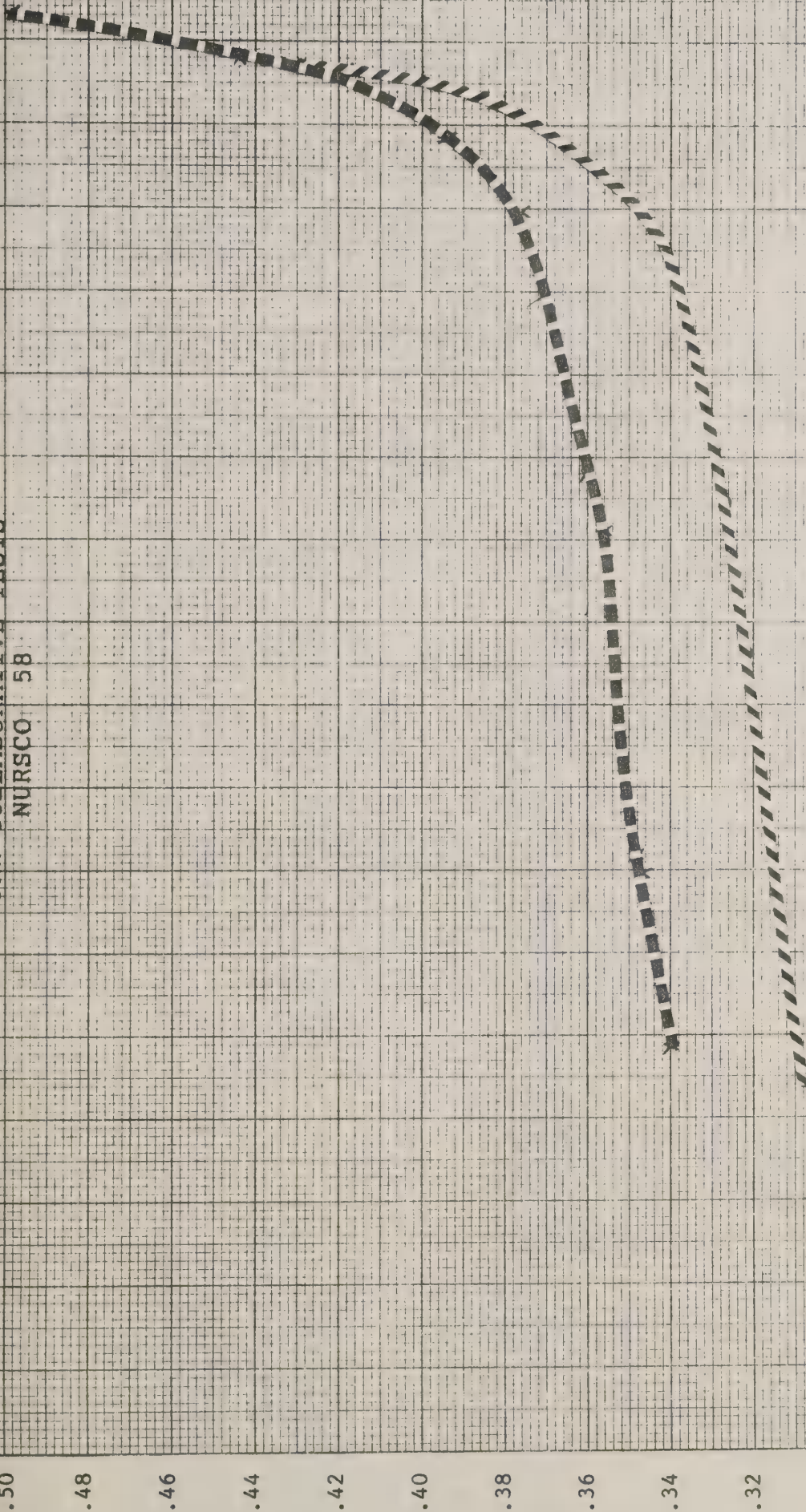
PNW COLLABORATIVE TESTS  
NURSCO 58

831768 - Paha  
831769 - WA6698

% ASH (14% M.B.)

10 20 30 40 50 60 70 80

% of Total Products





NURSCO 59

RIVERSIDE, CA

J.G. WAINES

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
831770	AMPHIPLOID #1 83-6X		HRS	52.4	56.8	0.69	55.7	15.0	49.6	1H	53.0
831771	AMPHIPLOID #4 83-6X		HRS	52.4	57.6	0.70	56.2	14.9	49.2	1H	52.5
831772	AMPHIPLOID #22 83-6X		HRS	48.4	55.1	0.75	50.7	15.9	51.6	1H	55.9
831773	AMPHIPLOID #26 83-6X		HRS	53.2	61.6	0.51	70.3	13.5	50.6	1H	54.5
831774	AMPHIPLOID #29 83-6X		HRS	49.6	56.6	0.61	59.5	13.6	50.6	1H	56.6
831775	T. MONOCOCCUM G3327 82-2X		SWS	59.6	68.4	0.30	89.3	12.9	46.9	1M	52.7
831776	T. MONOCOCCUM G3309 82-2X		SWS	60.0	68.3	0.36	85.4	13.3	46.0	1H	50.7
831777	AMPHIPLOID #31 83-6X		HRS	50.4	57.8	0.68	57.3	13.9	49.7	1H	54.0
831778	AMPHIPLOID #36 83-6X		HRS	53.2	56.3	0.59	60.6	15.7	51.0	1H	57.1
831779	MEXICALE 82-4X		HRS	60.0	59.1	0.73	56.2	13.2	68.3	4H	74.6
831780	COCANT 82-4X		HRS	62.0	59.7	0.69	58.7	13.0	67.5	4H	73.6
831781	PRODURA 82-4X		HRS	62.0	50.2	0.64	51.4	14.8	61.4	1H	69.3
831782	CRANE B 82-4X		HRS	61.2	52.3	0.65	53.1	12.9	61.6	1H	68.6
831783	WS3 82-4X		HRS	58.4	52.6	0.66	52.8	11.8	67.7	6M	73.6
831784	ANZA 82-6X	C1015284	HRS	63.6	69.4	0.44	82.0	10.5	61.9	3M	65.0
831785	CHINESE SPRING 83-6X		HRS	56.4	55.4	0.50	63.9	15.0	60.6	1H	70.7
831786	C.S. RYE SUB LINE (2RL-2AS/2A) 83-6X		HRS	56.0	52.1	0.41	65.3	14.5	61.0	1H	68.6

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 14% Protein.4/ Observed Values Corrected to 14% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.



PULLMAN, LIND VA

NUESCO 60

LAPNUM	VARIETY	IDNO	CLASS	TWT	WPROT	FYELD	FASH 1/	MSCOR	FMIST	FPROT 1/	AGTRO
831787	BURT--PULLMAN WINTER--	C1012696	HWW	57.3	8.9	69.9	0.43	79.1	13.1	8.5	59.5
831788	MORO	C1013740	CLUB	56.7	10.0	73.5	0.36	87.5	12.4	8.0	77.5
831789	WANSER	C1013844	HRW	58.2	9.2	70.9	0.39	82.3	13.1	8.3	60.3
831790	NUGAINES	C1013968	SWW	59.4	9.4	64.9	0.30	76.6	12.4	7.1	82.8
831791	PAHA	C1014485	CLUB	56.5	8.4	73.1	0.37	86.5	12.5	6.9	80.5
831792	YAMHILL	C1014563	SWW	56.1	10.0	70.0	0.38	79.2	12.1	7.8	78.3
831793	HYSLOP	C1014564	SWW	58.7	9.3	69.7	0.35	81.8	12.2	7.1	85.5
831794	LUKE	C1014586	SWW	57.8	8.3	70.8	0.33	82.3	12.3	6.5	87.5
831795	DAWS	C1017419	SWW	60.5	8.5	70.4	0.37	82.1	11.9	6.6	84.0
831796	STEPHENS	C1017569	SWW	57.8	7.9	70.3	0.35	83.0	11.9	6.2	88.0
831797	FARO	C1017590	CLUB	57.3	8.5	71.6	0.35	84.2	12.1	6.6	83.5
831798	HATTON	C1017772	HRW	63.3	9.2	77.0	0.47	86.6	12.3	8.1	49.0
831799	TYEE	C1017773	CLUB	57.0	7.5	73.8	0.36	87.9	12.1	5.6	85.3
831800	LEWJAIN	C1017909	SWW	58.8	8.7	70.3	0.34	83.0	12.4	6.4	87.0
831801	CREW	C1017951	CLUB	58.0	7.5	73.8	0.40	85.9	12.1	6.0	86.3
831802	HILL 81 (OR 68007)	C1017954	SWW	59.2	7.8	72.6	0.36	86.4	12.1	6.3	88.8
831803	JACMAR	WA6585	CLUB	54.5	8.2	73.8	0.37	86.6	12.0	6.4	83.5
831804		6/ WA6698	CLUB	60.1	8.7	73.5	0.37	86.4	11.9	6.7	82.3
831805		6/ WA6910	SWW	61.3	10.1	69.6	0.39	78.8	11.6	7.6	74.3
831806		6/ WA6912	SWW	59.0	7.5	73.3	0.37	86.0	11.8	5.9	88.0
831807		6/ OR 7794	SWW	60.9	9.3	71.6	0.35	83.8	11.4	7.0	84.5
831808		6/ OR 7796	SWW	59.9	9.1	70.0	0.39	80.1	11.8	7.0	80.8
831809		OR 8188	SWW	60.6	9.3	70.5	0.36	83.0	11.8	7.2	82.0
831810	BAART--PULLMAN--SPRING--	C101697	SWS	53.2	10.2	65.7	0.41	74.0	11.7	8.6	77.0
831811	WARED	C1015926	HRS	56.8	12.9	71.7	0.50	78.4	12.3	11.2	55.5
831812	FIELDER	C1017268	SWS	54.2	11.7	66.8	0.39	74.8	11.8	9.5	74.5
831813	URQUIE	C1017413	SWS	50.8	10.7	61.8	0.39	65.1	11.8	9.1	75.0
831814	WAMPUM	C1017691	HRS	54.5	13.0	68.1	0.44	77.3	12.8	11.5	61.0
831815	DIRKWIN	C1017745	SWS	53.7	11.2	68.6	0.43	75.3	11.4	9.4	77.5
831816	MCKAY	C1017903	HRS	58.4	13.1	69.8	0.41	81.6	12.7	11.4	61.8
831817	OWENS	C1017904	SWS	56.7	11.4	66.4	0.37	75.0	11.7	9.5	74.8
831818	WAVERLY	C1017911	SWS	56.1	12.4	66.0	0.40	72.4	11.7	10.8	76.8
831819	POTAM70/WA6021	6/ WA6831	SWS	54.1	12.9	65.8	0.40	72.5	11.5	10.3	69.0
831820		WA6917	SWS	57.6	11.9	63.6	0.40	70.4	11.8	10.2	74.3
831821	PROBRAND 751	6/ NK	HRS	58.3	13.4	71.2	0.43	81.4	12.3	12.2	71.0

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





DRILL STRIPS

NURSCO 60

PULLMAN, LIND WA

LARNUM	VARIETY	IDNO	CLASS	MABSC	MTYPE	FABS	FPEAK	FSTAB	VISC	VISCC
3/										
831787	BURT--PULLMAN WINTER--	CI012696	HW	63.0	4L	61.0	4.8	5.5	81	107
831788	MORO	CI013740	CLUB	51.1	2L					
831789	WANSER	CI013844	HRW	62.7	4L	62.2	4.5	9.0	55	122
831790	NUGAINES	CI013968	SWW	54.0	2L				27	53
831791	PAHA	CI014485	CLUB	49.9	1L					
831792	YAMHILL	CI014563	SWW	54.0	1L				54	76
831793	HYSLOP	CI014564	SWW	54.8	2L				56	104
831794	LUKE	CI014586	SWW	53.0	5L				42	108
831795	DAWS	CI017419	SWW	54.5	5L				68	168
831796	STEPHENS	CI017569	SWW	52.9	5L				37	118
831797	FARO	CI017590	CLUB	51.7	1L				40	97
831798	HATTON	CI017772	HRW	67.9	4L			4.4		
831799	TYEE	CI017773	CLUB	52.7	1L	71.5	5.3		38	257
831800	LEWJAIN	CI017909	SWW	54.2	5L				49	138
831801	CREW	CI017951	CLUB	50.3	1L				36	137
831802	HILL 81 (OR 68007)	CI017954	SWW	53.0	2L				34	99
831803	JACMAR	WA6585	CLUB	50.8	2L				28	76
831804		WA6698	CLUB	49.9	1L				31	69
831805		WA6910	SWW	54.1	1M				58	89
831806		WA6912	SWW	52.5	8L				32	136
831807		OR 7794	SWW	53.0	5L				51	100
831808		OR 7796	SWW	54.4	4L				54	105
831809		OR 8188	SWW	54.2	3L				57	102
831810	BAART--PULLMAN--SPRING--	CI01697	SWS	51.7	3L				87	97
831811	WARED	CI015926	HRS	63.3	5H	62.3	9.3	14.4		
831812	FIELDER	CI017268	SWS	52.4	2M				101	90
831813	URQUITE	CI017413	SWS	53.8	3M				114	111
831814	WAMPUM	CI017691	HRS	63.1	6H	58.0	19.9	32.2		
831815	DIRKWIN	CI017745	SWS	52.6	2M				77	71
831816	MCKAY	CI017903	HRS	62.1	7H	57.7	11.5	19.2		
831817	OWENS	CI017904	SWS	54.3	3M				128	114
831818	WAVERLY	CI017911	SWS	54.5	4M				134	93
831819	POTAM70/WA6021	WA6831	SWS	54.3	4L				146	111
831820		WA6917	SWS	52.2	7L				157	121
831821	PROBRAND 751	NK	HRS	62.8	5H	60.2	10.3	13.3		



DRILL STRIPS

NUKSCO 60

PULLMAN, LIND WA

LARNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	CODI
					3/			4/		
831787	BURT--PULLMAN WINTER--	C1012696	HW	63.2	63.7	3.3	675	706	8	7.77
831788	MORO	C1013740	CLUB							8.89
831789	WANSER	C1013844	HRW	63.2	63.9	4.3	610	658	8	7.59
831790	NUGAINES	C1013968	SWW							9.04
831791	PAHA	C1014485	CLUB							9.10
831792	YAMHILL	C1014563	SWW							9.02
831793	HYSLIP	C1014564	SWW							8.80
831794	LUKE	C1014586	SWW							9.39
831795	DAWS	C1017419	SWW							8.60
831796	STEPHENS	C1017569	SWW							9.02
831797	FARO	C1017590	CLUB							9.00
831798	HATTON	C1017772	HRW						9	7.17
831799	TYEE	C1017773	CLUB							9.16
831800	LEWJAIN	C1017909	SWW							9.42
831801	CREW	C1017951	CLUB							9.20
831802	HILL 81 (OR 68007)	C1017954	SWW							9.02
831803	JACMAR	WA6585	CLUB							9.21
831804		WA6698	CLUB							9.07
831805		WA6910	SWW							8.39
831806		WA6912	SWW							9.27
831807		OR 7794	SWW							8.72
831808		OR 7796	SWW							9.09
831809		OR 8188	SWW							8.79
831810	BAART--PULLMAN--SPRING--	C101697	SWS							8.84
831811	WARED	C1015926	HRS	66.7	64.5	4.9	875	739	3	7.66
831812	FIELDER	C1017268	SWS							8.89
831813	URQUITE	C1017413	SWS							8.97
831814	WAMPUM	C1017691	HRS	65.8	63.3	6.6	1060	905	2	8.25
831815	DIRKWIN	C1017745	SWS							9.02
831816	MCKAY	C1017903	HRS	65.7	63.3	8.0	975	826	2	8.26
831817	OWENS	C1017904	SWS							9.14
831818	WAVERLY	C1017911	SWS							8.85
831819	POTAM70/WA6021	WA6831	SWS							8.95
831820		WA6917	SWS							8.34
831821	PROBRAND 751	NK	HRS	67.2	64.0	5.4	1075	877	2	7.85



DRILL STRIPS

NUMSCO 60

PULLMAN, LIND WA

L ARNUM	VARIETY	IDNO	CLASS	CODIC	CAVOL	SCSOR	WTIN	NOSCO	RMKS
4/									
831787	BURT--PULLMAN WINTER--	C1012696	HW	7.73					
831788	MORO	C1013740	CLUB	8.79	1190	69.0	370	73	
831789	WANSER	C1013844	HRW	7.53					
831790	NUGAINES	C1013968	SWW	8.81	1170	69.0	350	74	
831791	PAHA	C1014485	CLUB	9.02	1280	79.0	378	72	
831792	YAMHILL	C1014563	SWW	8.88	1170	67.0	362	71	
831793	HYSLOP	C1014564	SWW	8.54	1125	64.0	346	73	
831794	LUKE	C1014586	SWW	9.17	1255	76.0	342	73	
831795	DAWS	C1017419	SWW	8.34	1140	68.0	353	76	
831796	STEPHENS	C1017569	SWW	8.72	1245	74.0	346	69	
831797	FARO	C1017590	CLUB	8.83	1210	73.0	364	78	
831798	HATTON	C1017772	HRW	7.10					
831799	TYEE	C1017773	CLUB	8.92	1245	73.0	349	76	
831800	LEWJAIN	C1017909	SWW	9.14	1295	76.0	345	75	
831801	CREW	C1017951	CLUB	8.99	1285	77.0	364	78	
831802	HILL 81 (OR 68007)	C1017954	SWW	8.73	1270	76.0	361	75	
831803	JACMAR	WA6585	CLUB	9.03	1250	74.0	351	74	
831804		WA6698	CLUB	8.91	1230	72.0	363	81	
831805		WA6910	SWW	8.23	1110	66.0	355	73 P-MILLING, CODI&SCSOR	
831806		WA6912	SWW	8.93	1260	78.0	329	70 Q-NSCOR	
831807		OR 7794	SWW	8.50	1180	72.0	353	74 Q-CODI	
831808		OR 7796	SWW	8.87	1170	70.0	353	71 Q-SCSOR	
831809		OR 8188	SWW	8.59	1130	64.0	346	74 P-SCSOR	
831810	BAART--PULLMAN--SPRING--	C101697	SWS	8.79	1285	78.0	365	73	
831811	WARED	C1015926	HRS	7.84					
831812	FIELDER	C1017268	SWS	8.94	1295	80.0	384	75	
831813	URQUIE	C1017413	SWS	8.99	1305	79.0	361	66	
831814	WAMPUM	C1017691	HRS	8.45					
831815	DIRKWIN	C1017745	SWS	9.07	1225	72.0	389	70	
831816	MCKAY	C1017903	HRS	8.45					
831817	OWENS	C1017904	SWS	9.19	1290	77.0	382	74	
831818	WAVERLY	C1017911	SWS	9.05	1220	71.0	365	72	
831819	POTAM70/WA6021	WA6831	SWS	9.09	1230	70.0	384	71	
831820		WA6917	SWS	8.47	1270	71.0	380	70 P-FYELD&CODI	
831821	PROBRAND 751	NK	HRS	8.11					



DRILL STRIPS

PULLMAN, LIND WA

NURSCO 60

LINUM	VARIETY	IDNO	CLASS	TWT	WPROT	FYELD	FASH	MSCOR	FMIST	FPROT	AGTRO
							1/			1/	
831822	BURT--LIND--WINTER--										
831823	MORO	CI012696	HW	62.5	11.4	71.9	0.44	82.9	12.3	10.8	67.0
831824	WANSER	CI013740	CLUB	59.0	11.3	70.3	0.40	79.6	11.5	9.8	79.8
831825	WAGAINES	CI013844	HRW	62.5	11.5	72.3	0.38	87.2	12.5	11.0	71.0
831826	YAMHILL	CI013968	SWW	61.7	10.5	68.7	0.39	78.9	11.4	9.1	80.3
		CI014563	SWW	59.6	11.7	70.7	0.42	79.5	11.7	10.1	73.0
831827	HYSLOP	CI014564	SWW	59.4	11.1	69.3	0.40	78.1	11.7	9.9	78.8
831828	LUKE	CI014586	SWW	61.5	11.1	68.1	0.39	75.7	11.7	9.3	80.0
831829	DAWS	CI017419	SWW	60.8	10.6	69.0	0.40	77.9	11.7	9.3	80.3
831830	STEPHENS	CI017569	SWW	60.3	11.0	71.4	0.39	81.6	11.3	9.6	80.5
831831	FARO	CI017590	CLUB	58.5	10.8	73.4	0.41	82.8	11.3	9.2	75.5
831832	HATTON	CI017772	HRW	64.3	11.2	70.2	0.39	83.0	12.3	10.4	77.0
831833	TYEE	CI017773	CLUB	59.0	10.7	74.3	0.41	85.4	11.4	9.1	73.8
831834	LEWJAIN	CI017909	SWW	61.9	11.0	66.9	0.38	75.7	11.4	9.3	78.3
831835	CREW	CI017951	CLUB	59.5	10.8	72.1	0.42	81.9	11.5	9.2	77.3
831836	HILL 81 (OR 68007)	CI017954	SWW	61.2	11.3	71.4	0.42	80.9	11.4	8.9	80.5
831837	SPRAGUE	CI018376	SWW	61.7	10.9	66.3	0.37	75.4	12.0	9.3	89.0
831838	JACMAR	WA6585	CLUB	56.6	12.2	68.4	0.39	76.5	11.8	9.8	77.0
831839		6/ WA6698	CLUB	60.2	10.7	72.1	0.41	82.6	11.9	9.3	80.0
831840	TWIN--LIND--SPRING--	CI014588	SWS	61.1	12.2	68.0	0.41	74.5	11.4	10.5	78.0
831841	WARED	CI015926	HRS	63.3	12.7	69.2	0.41	79.8	12.6	11.8	77.0
831842	BORAH		HRS	63.2	12.8	71.3	0.38	83.8	12.2	11.9	70.3
831843	FIELDER	CI017267	SWS	62.4	12.1	68.3	0.37	77.7	11.4	10.1	72.0
831844	URQUITE	CI017413	SWS	64.0	11.4	71.3	0.38	81.6	11.4	9.9	75.3
831845	SAWTELL	CI017424	HRS	62.3	12.6	71.2	0.41	83.1	12.3	12.0	68.0
831846	WAMPUM	CI017691	HRS	62.1	12.0	71.2	0.45	81.4	12.5	11.6	69.5
831847	DIRKWIN	CI017745	SWS	61.2	11.8	69.4	0.41	78.2	11.4	10.6	77.8
831848	OWENS	CI017904	SWS	62.8	11.9	66.2	0.36	77.0	11.4	10.1	74.5
831849	WAVERLY	CI017911	SWS	61.6	12.4	69.1	0.37	79.5	11.4	10.6	80.3
831850	POTAM 70/WA6021	6/ WA6831	SWS	61.4	11.0	68.9	0.37	79.2	11.6	9.8	75.3
831851	PROBRAND 751	6/ NK	HRS	62.5	11.9	70.7	0.41	82.9	12.4	11.4	77.0





DRILL STRIPS

NURS00 60

PULLMAN, LIND WA

LATNUM	VARIETY	IDNO	CLASS	MABSC	MTYPE	FABS	FPEAK	FSTAB	VISC	VISCC
3/										
831822	BURT--LIND--WINTER--									
831823	MORO	C1012696	HRW	62.2	3H	62.1	5.0	3.5	108	91
831824	WANSER	C1013740	CLUB	51.3	3M					
831825	NUGAINES	C1013844	HRW	62.8	3H	62.7	8.1	9.2		
831826	YAMHILL	C1013968	SWW	54.9	2M				99	96
		C1014563	SWW	54.7	2M				76	60
831827	HYSLOP	C1014564	SWW	52.9	3M				93	77
831828	LUKE	C1014586	SWW	54.0	3M				85	79
831829	DAWS	C1017419	SWW	53.0	2M				104	97
831830	STEPHENS	C1017569	SWW	52.8	2M				84	74
831831	FARO	C1017590	CLUB	49.7	2M				105	100
831832	HATTON	C1017772	HRW	62.6	4H	63.4	6.2	10.5		
831833	TYEE	C1017773	CLUB	50.4	2M				101	98
831834	LEWJAIN	C1017909	SWW	53.7	3M				94	87
831835	CREW	C1017951	CLUB	49.4	2M				66	63
831836	HILL 81 (OR 68007)	C1017954	SWW	51.6	1M				79	81
831837	SPRAGUE	C1018376	SWW	52.9	2M				108	101
831838	JACMAR	WA6585	CLUB	51.1	2M				82	69
831839		WA6698	CLUB	48.3	1M				45	42
831840	TWIN--LIND--SPRING--	C1014588	SWS	52.0	1M				79	58
831841	WARED	C1015926	HRS	62.1	3H	62.4	7.2	6.0		
831842	BORAH	C1017267	HRS	63.0	5H	66.1	9.7	12.3		
831843	FIELDER	C1017268	SWS	51.9	1M				105	83
831844	URQUIE	C1017413	SWS	50.6	2M				112	92
831845	SAWTELL	C1017424	HRS	64.0	5H	65.2	15.4	22.0		
831846	WAMPUM	C1017691	HRS	62.7	4H	63.1	10.5	11.5		
831847	DIRKWIN	C1017745	SWS	48.9	2M				90	65
831848	OWENS	C1017904	SWS	53.4	2M				123	97
831849	WAVERLY	C1017911	SWS	54.4	3M				154	111
831850	POTAM 70/WA6021	WA6831	SWS	52.4	2M				109	91
831851	PROBRAND 751	NK	HRS	63.7	4H	63.1	11.0	7.5		



DRILL STRIPS

PULLMAN, LIND WA

NURSCO 60

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	CODI
831822	BURT--LIND--WINTER--									
831823	MORO	C1012696	HW	64.2	62.4	2.5	910	798	2	8.01
831824	WANSER	C1013740	CLUB							8.96
831825	NUGAINES	C1013844	HRW	66.0	64.0	3.7	915	777	2	8.04
831826	YAMHILL	C1013968	SWW							8.96
		C1014563	SWW							8.97
831827	HYSLOP	C1014564	SWW							8.77
831828	LUKE	C1014586	SWW							8.82
831829	DAWS	C1017419	SWW							8.60
831830	STEPHENS	C1017569	SWW							8.61
831831	FARO	C1017590	CLUB							8.70
831832	HATTON	C1017772	HRW	65.2	63.8	3.0	875	788	2	8.07
831833	TYEE	C1017773	CLUB							8.89
831834	LEWJAIN	C1017909	SWW							9.22
831835	CREW	C1017951	CLUB							8.89
831836	HILL 81 (OR 68007)	C1017954	SWW							8.89
831837	SPRAGUE	C1018376	SWW							8.97
831838	JACMAR	WA6585	CLUB							9.21
831839		WA6698	CLUB							8.85
831840	TWIN--LIND--SPRING--	C1014588	SWS							8.65
831841	WARED	C1015926	HRS	65.6	62.8	3.9	1005	831	2	7.89
831842	BORAH	C1017267	HRS	66.6	63.7	3.6	975	795	3	7.86
831843	FIELDER	C1017268	SWS							8.91
831844	URQUIE	C1017413	SWS							8.94
831845	SAWTELL	C1017424	HRS	67.7	64.7	5.5	1025	839	2	7.79
831846	WAMPUM	C1017691	HRS	65.0	62.4	3.8	1065	904	2	8.19
831847	DIRKWIN	C1017745	SWS							8.47
831848	OWENS	C1017904	SWS							8.91
831849	WAVERLY	C1017911	SWS							8.61
831850	POTAM 70/WA6021	WA6831	SWS							8.91
831851	PROBRAND 751	NK	HRS	65.3	62.9	3.5	1080	931	2	7.94



USDA, SEA AR  
WESTERN WHEAT  
PULLMAN, WA.

## DRILL STRIPS

INDUSCO 60

PULLMAN, LIND WA

LARNUM	VARIETY	IDNO	CLASS	CODIC 4/	CAVOL	SCSOR	WTIN	NOSCO	RMKS
831822	BURT--LIND--WINTER--								
831823	MORO	C1012696	HW	8.16					
831824	WANSER	C1013740	CLUB	9.04	1185	65.0	379	69	
831825	NUGAINES	C1013844	HRW	8.20					
831826	YANHILL	C1013968	SWW	8.97	1150	64.0	367	70	
		C1014563	SWW	9.11	1165	70.0	373	69	
831827	HYSLOP	C1014564	SWW	8.87	1135	67.0	364	73	
831828	LUKE	C1014586	SWW	8.85	1220	71.0	375	76	
831829	DAWS	C1017419	SWW	8.63	1150	65.0	387	80	
831830	STEPHENS	C1017569	SWW	8.68	1150	65.0	370	73	
831831	FARO	C1017590	CLUB	8.71	1225	70.0	366	75	
831832	HATTON	C1017772	HRW	8.19					
831833	TYEE	C1017773	CLUB	8.89	1205	70.0	365	75	
831834	LEWJAIN	C1017909	SWW	9.26	1205	70.0	374	74	
831835	CREW	C1017951	CLUB	8.90	1225	72.0	373	75	
831836	HILL 81 (OR 68007)	C1017954	SWW	8.88	1135	62.0	375	74	
831837	SPRAGUE	C1018376	SWW	8.99	1225	69.0	376	79	
831838	JACMAR	WA6585	CLUB	9.27	1280	76.0	359	67	
831839		WA6698	CLUB	8.87	1230	69.0	370	72	
831840	TWIN--LIND--SPRING--	C1014588	SWS	8.81	1145	62.0	390	72	
831841	WARED	C1015926	HRS	8.11					
831842	BORAH	C1017267	HRS	8.09					
831843	FIELDER	C1017268	SWS	9.03	1205	66.0	396	74	
831844	URQUIE	C1017413	SWS	9.04	1190	69.0	362	67	
831845	SAWTELL	C1017424	HRS	8.03					
831846	WAMPUM	C1017691	HRS	8.40					
831847	DURKWIN	C1017745	SWS	8.65	1095	59.0	368	67	
831848	OWENS	C1017904	SWS	9.03	1215	73.0	386	73	
831849	WAVERLY	C1017911	SWS	8.79	1115	63.0	377	75	
831850	POTAM 70/WA6021	WA6831	SWS	9.00	1165	67.0	381	75	
831851	PROBRAND 751	NK	HRS	8.13					

COMMENTS: These cultivars and a few advanced selections were grown at the request of the Western Wheat Qual. Lab. by the Dept. of Agronomy & Soils. Washington State University. They serve as a source for research materials for which we appreciate and thank the Agronomy and Soils Dept..





NURSCO 61

RIVERSIDE, CA

J.D. RHOADES

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
831852	YECORA ROJO	201/AAAA	HRS	62.6	66.5	0.45	72.7	9.8	60.3	8M
831853	YECORA ROJO	202/AAAA	HRS	62.3	68.3	0.46	76.0	10.0	62.0	8M
831854	YECORA ROJO	203/AAAM	HRS	61.8	68.9	0.47	76.8	10.4	60.7	8M
831855	YECORA ROJO	204/AAAW	HRS	62.2	68.1	0.48	74.8	10.3	61.2	8M
831856	YECORA ROJO	205/AMAA	HRS	62.5	68.1	0.52	72.4	10.5	61.3	8M
831857	YECORA ROJO	206/AMAM	HRS	59.5	67.6	0.54	70.5	10.3	60.9	8M
831858	YECORA ROJO	207/AMAA	HRS	62.3	67.1	0.51	71.4	10.1	60.6	8M
831859	YECORA ROJO	208/AAAW	HRS	61.1	66.8	0.50	71.2	10.1	61.7	8M
831860	YECORA ROJO	209/MMAA	HRS	62.0	69.1	0.49	75.5	10.3	60.4	8M
831861	YECORA ROJO	210/MMAM	HRS	61.0	67.6	0.50	76.6	10.6	61.6	8M
831862	YECORA ROJO	211/WWAA	HRS	61.1	67.5	0.51	72.4	9.7	61.0	8M
831863	YECORA ROJO	212/WWWW	HRS	60.5	66.9	0.49	71.8	10.4	62.2	8M

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
831852	YECORA ROJO	201/AAAA	HRS	62.8	63.0	4.7	865	877	2	
831853	YECORA ROJO	202/AAAA	HRS	64.7	64.7	4.8	885	885	2	
831854	YECORA ROJO	203/AAAM	HRS	64.8	64.4	4.9	903	878	2	
831855	YECORA ROJO	204/AAAW	HRS	65.7	65.4	4.7	893	874	2	
831856	YECORA ROJO	205/AMAA	HRS	66.0	65.5	3.9	880	849	3	
831857	YECORA ROJO	206/AMAM	HRS	65.9	65.6	4.5	873	854	2	
831858	YECORA ROJO	207/AMAA	HRS	65.9	65.8	4.3	835	829	2	
831859	YECORA ROJO	208/AAAW	HRS	66.0	65.9	4.5	850	844	2	
831860	YECORA ROJO	209/MMAA	HRS	64.9	64.6	4.8	875	856	2	
831861	YECORA ROJO	210/MMAM	HRS	66.4	65.8	4.4	870	833	2	
831862	YECORA ROJO	211/WWAA	HRS	66.9	67.2	4.7	823	842	3	
831863	YECORA ROJO	212/WWWW	HRS	67.3	66.9	4.4	890	865	2	

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 10% Protein.4/ Observed Values Corrected to 10% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

## COMMENTS:

Samples were evaluated in co-operation with Maura Bean, USDA, ARS, WRRRC and James D. Rhoades, USDA, ARS, U.S. Salinity Laboratory. See page 2 for identification of the coding (IDNO) for previous cropping and water used at the germination and growing stage of the wheat samples. There is some variability in flour yield and flour ash levels. Samples 201 and 202 with California Aqueduct water were lower in flour ash (.45-.46%) than those with medium or high salinity water (M and W). It is questionable whether there is any significant difference in dough properties or loaf volume attributable to irrigation water salinity.



March, 1984

Lab Code	Water Quality		Water Quality	
	Before Wheat <sup>2</sup>		For Wheat Production	
	Cotton Germination Stage	Cotton Growing Stage	Germination Stage	Growing Stage
201	A	A	A	A (1)
202	A	A	A	A (2)
203	A	A	A	M
204	A	A	A	W
205	A	M	A	A
206	A	M	A	M
207	A	W	A	A
208	A	W	A	W
209	M	M	A	A
210	M	M	A	M
211	W	W	A	A
212	W	W	W	W

Pre-Wheat →	AA	AM	AW	MM	WW
Wheat ↓					
AA	XX	X	X	X	X
AM	X	X		X	
AW	X		X		
WW					X

<sup>1</sup> Reference: Letter from James D. Rhoades, U.S. Salinity Laboratory, Riverside, CA, March 2, 1984.

<sup>2</sup> Four consecutive years of cotton production

A - California Aqueduct Water - 300 mg/l TDS

M - Medium Salinity Water - 3000 mg/l TDS

W - High Salinity Water - 6000 mg/l TDS



NURSCO 62

PULLMAN, WA

C.J. PETERSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>			<u>3/</u>	
831864	WANSER	C1013844	HRW	57.6	68.2	0.32	86.8	8.2	59.0	4L
831865	WESTON	C1017727	HRW	64.4	71.1	0.37	87.5	8.7	60.4	4M
831866		OR7925	HRW	52.4	64.4	0.40	78.9	8.8	58.9	4M
831867		ID0217	HRW	65.2	71.8	0.36	88.7	8.2	58.9	4L
831868		UT125327	HRW	62.4	66.8	0.37	82.6	6.1	59.4	8L
831869		VJ81019	HRW	59.6	64.3	0.34	81.5	8.4	57.6	3L
831870		WA7048	HRW	62.4	68.7	0.37	84.6	6.5	57.7	8L
831871		VJ81169	HRW	63.2	68.9	0.32	87.5	7.4	60.1	6L
831872		VH81319	HRW	63.2	70.1	0.33	88.5	8.4	56.1	5L
831873		VH81522	HRW	63.6	67.4	0.36	84.2	9.1	59.6	7M

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
831864	WANSER	C1013844	HRW	61.4	61.2	4.0	750	736	8	
831865	WESTON	C1017727	HRW	63.3	62.6	2.3	710	667	8	
831866		OR7925	HRW	62.9	62.1	3.4	640	590	9 P-FYELD, LVOL&BCRGR	
831867		ID0217	HRW	60.3	60.1	2.8	700	688	8 Q-LVOL	
831868		UT125327	HRW	60.7	62.6	3.8	500	618	9 P-FYELD, LVOL&BCRGR	
831869		VJ81019	HRW	59.7	59.3	2.9	630	605	9 P-FYELD, LVOL&BCRGR	
831870		WA7048	HRW	58.4	59.9	3.6	560	653	9 P-LVOL&BCRGR	
831871		VJ81169	HRW	61.7	62.3	3.7	620	657	9 P-LVOL&BCRGR	
831872		VH81319	HRW	57.7	57.3	3.5	700	675	6	
831873		VH81522	HRW	62.9	61.8	3.2	705	637	6	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: Selections VH81319 and VH 81522 may have some promise for hard red bread wheats, as they appear slightly better in bread crumb structure than Wanser and Weston. The protein was too low for trustworthy data.





NURSCO 63

ID, WA

C.J. PETERSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC RMKS			
												1/	2/	3/	4/
831874	BARBEE--WALLA WALLA--	C1017417	CLUB	56.9	66.3	0.45	73.1	10.3	53.4	2M	8.71	8.88			
831875		WA6912	SWW	61.2	70.3	0.41	77.9	9.0	56.4	3M	8.67	8.78			
831876	BARBEE--CAVENDISH--	C1017417	CLUB	57.5	68.9	0.43	78.4	7.0	51.6	1L	9.07	9.00			
831877		WA6912	SWW	59.1	72.6	0.40	82.5	6.1	52.6	2L	9.12	8.92			
831878	BARBEE--RITZVILLE--	C1017417	CLUB	58.2	70.8	0.38	81.1	6.1	50.2	1L	9.49	9.35			
831879		WA6912	SWW	60.1	72.5	0.39	83.6	6.6	52.8	2L	9.27	9.12			
831880	BARBEE--LEWISTON--	C1017417	CLUB	59.1	70.5	0.39	79.9	9.9	53.7	1M	8.87	9.01			
831881		WA6912	SWW	60.1	70.2	0.39	79.7	10.0	56.3	3M	8.80	9.02			
831882	BARBEE--PULLMAN LATE--	C1017417	CLUB	58.9	70.7	0.36	81.6	7.6	48.8	2L	8.95	8.92			
831883		WA6912	SWW	62.3	72.7	0.36	86.2	6.1	54.0	4L	9.36	9.15			
831884	BARBEE--PULLMAN EARLY--	C1017417	CLUB	60.1	70.8	0.40	81.0	7.4	49.3	1L	8.99	8.94			
831885		WA6912	SWW	61.5	68.4	0.32	82.1	7.3	53.0	4L	8.82	8.75			
831886	BARBEE--POMEROY--	C1017417	CLUB	61.5	70.1	0.38	80.7	7.2	50.7	1L	9.00	8.94			
831887		WA6912	SWW	62.8	72.8	0.31	87.4	7.2	54.4	4M	8.82	8.74			
831888	BARBEE--CUNNINGHAM--	C1017417	CLUB	52.3	66.2	0.51	69.3	9.8	53.6	1M	8.51	8.64			
831889		WA6912	SWW	56.5	68.1	0.47	72.7	9.2	55.8	4M	8.61	8.74			
		BARBEE Avg.	CLUB		69.2		78.1	8.2	51.4			8.95			
		WA6912 Avg.	SWW		71.0		81.5	7.7	54.4			8.93			

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: WA6912 has better flour yield and overall milling properties than Barbee when averaged over these eight locations. Protein was about .5% lower, water absorption 3.0% higher, and cookie diameter the same as Barbee.









